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**Encyclopedia, Knowledge, and Public:
Recursive Structure and the Universal Ideal**

by

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Abstract

The encyclopedia in its earliest forms aimed at an ideal of knowledge that was universal in some way. In fact, changes to the encyclopedic genre have arisen particularly from its response to evolving notions of universality and parameters of completeness; totality remains a central, if theoretical, aim of the encyclopedia.

The object of this study is to investigate the structure of the relationship that exists among knowledge, public, and the encyclopedia in Enlightenment France and Britain by examining how encyclopedia compilation as a process oriented toward theoretical universality manifests a contradiction parallel to the Babelian paradox of translation theory. This paradox is illustrated by the treatment within the encyclopedia of concepts that it cannot contain and is revealed through the compiler's implicit and explicit commentary on the fluid boundaries of knowledge and public, and the encyclopedia itself.

Three encyclopedias are considered within the scope of this thesis: the *Cyclopaedia*, by Ephraim Chambers (1728), the *Encyclopédie*, edited by Denis Diderot and Jean le Rond d'Alembert (1751-1766), and the *Encyclopaedia Britannica*, edited by William Smellie (1771). The *Cyclopaedia*, whose author is considered a pioneer in modern encyclopedic practice, stands as a direct precursor and source text of the *Encyclopédie*, an icon of Enlightenment values and a symbol of the quest for knowledge. The latter work has in turn been credited as the inspiration for the *Britannica*, the multiple editions of which have spanned over two centuries. Taken together, these three works form a chain of translation,

making them an intriguing corpus for the consideration of Babel as it relates to the encyclopedic goal of universality.

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Introduction

Encyclopædia, the Circle, or
Chain, of all Sciences and Arts.

– *Cyclopaedia*

Encyclopédie, f. f. [Philosoph.]
Ce mot signifie *enchaînement
de connoissances*; il est
composé de la préposition
grecque [...], *en*, & des
substantifs [...], *cercle*; & [...],
connoissance.

– *Encyclopédie*

Cyclopædia, or Encyclopædia,
denotes the circle or compass of
arts and sciences.

– *Encyclopaedia Britannica*

As suggested by the compilers' own definitions of encyclopedia, a circular structure is inherent to this type of compilation. In fact, the notion of cyclical movement orbits around the encyclopedia, appearing in its etymology, its definition, and its function, all related, as outlined by the compilers themselves. But in addition to its position of encompasser of knowledge, the encyclopedia is also an element within a larger system. Does this concept of circularity apply not only within the encyclopedia, but outside of it as well? In other words, what structure "encompasses" the encyclopedia?

This thesis aims to establish the structure of the relationship among knowledge, public, and the encyclopedia in Enlightenment France and Britain by examining how the encyclopedic process, by its orientation toward the ideal of universal knowledge, manifests a contradiction parallel to the Babelian paradox of translation theory, wherein universality is both theoretically required and at the same time unattainable.¹ This paradox is illustrated by the very treatment within the encyclopedia of concepts that it cannot contain, including reflections on the encyclopedia itself and, more generally, the oscillating boundaries of knowledge and public. The encyclopedia records knowledge that influences the public while the public, through scientific inquiry or social debate, is the source of knowledge that is recorded by the encyclopedia—thus the public and the encyclopedia are locked in a process of mutual and simultaneous definition and reformation that takes place via the channel of knowledge and continues in an infinite loop.



This graphic is meant to imply the interdependence of the elements within the system and the constant flux of this interdependence. It is not meant to be seen as a slice in time, because it is not static: not only is the movement among the elements constant and simultaneous, but none of these elements can be precisely

¹ This paradox is addressed in terms of necessity and impossibility throughout the thesis. Although ultimately, any paradox can be seen as an expression of this conflict, Derrida's contribution to the discussion in his dissection of the concept of paradox into the fundamental components of necessity and impossibility in *Des tours de Babel* is acknowledged.

located in a moment in time. The encyclopedia is the product of past influences arising from changes to knowledge and the public, and itself influences knowledge and the public in the future—the motion among these elements has no discernable beginning or end point.

Because the encyclopedia depends on the other elements within the system for its own definition at any given moment and over time, any efforts to record them are bound to be incomplete. The encyclopedia is made possible by the compiler's dual role as non-member and member of the public depending on his position as giver or receiver of information—a situation that precludes objectivity or universality of either scope or audience, both of which are fundamental theoretical goals of the encyclopedia. This goal of proliferating a wide scope of knowledge to the largest possible audience is particularly salient in the context of the Enlightenment during which the trafficking of information began to be regarded as an essential responsibility rather than a mere luxury. It was also during this time that a distinction between the public and the private sphere underwent a reformation. While in practice, readership of encyclopedias was restricted according to social status and financial means, the disseminating impulse remains theoretically central to the encyclopedic project. The encyclopedic aim toward universal knowledge can therefore be seen according to the completeness of the content that a compilation seeks to encompass as well as the span of readers that it targets.

Universality of audience—and, by extension, universality of geographic reach—faces the same challenge as the translational goal of communicability, for

what is communicability if not the mechanism by which the total public can be reached? Any text that has a built-in bias—in other words, any text—is by definition incomplete in its scope, and therefore imperfect by the theoretical standards of the encyclopedic ideal.

Universality of scope, or coverage, is equally problematic: the encyclopedia is bound to be incomplete—no text can contain any totality of information, even within a contained field, because it cannot contain itself. Nor can it extricate itself from the public to which it is committed and of which it is a part. Thus the encyclopedic enterprise is fated to fall short of the theoretical standards that define its ideal manifestation. Although the encyclopedia's aim toward universality of audience and scope proves unattainable, the compiler's vision of what constitutes completeness in these domains betrays an ideological starting point. Even if the encyclopedia is limited to a particular field of study, the parameters set by the compiler give insight into his viewpoint on the organization of society and knowledge.² The latter is made all the more explicit in the trees of knowledge set out by compilers, present in two of the three encyclopedias within this study.³

² For the sake of brevity, we use the masculine pronoun throughout the thesis to include individuals of either gender, while acknowledging the contribution of women to the development of Enlightenment culture, particularly in translation, but also in the context of encyclopedia compilation: for example, it is of interest that the Marquise de Jaucourt, sister-in-law to the Chevalier de Jaucourt, an active contributor to the *Encyclopédie*, was one of few women who may have been involved with the compilation (Blom 143), although Blom explicitly credits Louise-Florence d'Épinay with being “the only woman to maintain a place in the Encyclopedist circle” (160).

³ Yeo points out that “Chambers did not use the words map, tree, or chart, but referred to his diagram as ‘a View of Knowledge’ exhibiting its various divisions and relations between them” (1996 171).

Further complicating the encyclopedic project is the fact that universality of scope can be seen as contradictory to universality of audience: as knowledge becomes more specialized in content, its appeal to wide readership diminishes. In translation, this tension between source and target is evoked by the expression *Les belles infidèles*: an emphasis must be chosen, and if a text is easily readable, there is bound to be sacrifice on the side of its source.

The decision to view encyclopedias through the lens of translation theory arises naturally from the common properties that compilation shares with translation. Both encyclopedia compilation and translation serve to broaden access to information and, in so doing, effect a change on what can be viewed as source material. In this way, the encyclopedia and the translated text necessarily get between the source text and target audience; yet ironically, it is by this intervention that these works facilitate readers' access to material that was previously restricted in some way.⁴

It is of interest that the process of encyclopedia compilation has been discussed in the context of the commonplace book tradition. In particular, Yeo has considered the *Cyclopaedia* from this perspective, concluding that "there is some affinity between Chambers's work and at least some of the assumptions of the commonplace tradition, but there is no simple continuity" (1996 173). While we do not address the commonplace tradition in this study, Yeo's writing on the subject informs the notion of the flow of knowledge and information among compilers and the blurred boundaries between private and public knowledge that are discussed in this thesis.

⁴ For readers unfamiliar with translation theory, see Venuti (2004) for an overview of the field.

In considering knowledge in the context of transfer from one person to another, a distinction can be drawn between information and knowledge. Arlene G. Taylor summarizes this difference in the following way:

According to several dictionaries, *knowledge* exists in the mind of an individual who has studied a matter, understands it, and perhaps has added to it through research or other means. The same dictionaries indicate that *information* is the communication or reception of knowledge. Such communication occurs in great part through the recording of the knowledge in some fashion. People write, speak, compose, paint, sculpt, and in many other ways attempt to communicate their knowledge to others (3).

In the context of the encyclopedia's relationship with knowledge and public, therefore, it can be understood that what we refer to as the transfer of knowledge implies a transfer of knowledge to information, which becomes internalized as knowledge by the receiver. As much as possible, we have maintained this distinction; in general comments on the structure of this relationship, however, this passage of knowledge to information to knowledge is implied.

Corpus

The paradox of a universal ideal implied in encyclopedia compilation invites an examination of the encyclopedia from the perspective of Babel,

specifically as related to the implicit objectivity and authority invested in it. To this end, three encyclopedias are considered: *Cyclopaedia*, by Ephraim Chambers (1728), the *Encyclopédie*, edited by Denis Diderot and Jean le Rond D'Alembert (1751-1766), and the *Encyclopaedia Britannica*, edited by William Smellie (1771). The characteristic of the encyclopedia as both influencing and being influenced by the public with which it interacts makes it a valuable tool for understanding the subtleties of the social context of its creation. Specifically, the study of encyclopedias of Enlightenment France and Britain gives insight into the methods by which Enlightenment ideals were promoted and diffused. The encyclopedia's ostensible objectivity is circularly reinforced by the interplay and overlap of public and encyclopedia, in that, in its aim toward universality of audience, the text supposedly represents the views of the greater public via expressions of common knowledge rather than the personal opinions of the compiler, a quality that is in some cases exploited by compilers in order to publicize a subversive agenda.⁵ The compiler's violation of the implicit claim to objectivity that is inherent within the encyclopedic genre is inevitable yet only sometimes deliberate, which calls into question the impossibility of objectivity in any practical application. Thus the hypothetically objective character of the encyclopedia acts as a foil to the subjectivity that is actually found within it. Because the compiler can conceal himself behind the veil of expected objectivity provided by the encyclopedia and capitalize on the encyclopedic structure and the drive toward universality to communicate his viewpoint of the organization of the

⁵ See Blom (154).

universe, the encyclopedic text represents an ideal medium for the circulation of bold and provocative new ideas.

A veritable icon of Enlightenment values, the *Encyclopédie* is representative of the quest for knowledge, universal in scope, that marked the eighteenth century. The *Cyclopaedia*, whose author is championed as “the father of the modern encyclopaedia throughout the world” (Collison 103), stands as a direct precursor and source text of the *Encyclopédie*, which has in turn been credited as the inspiration for the *Encyclopaedia Britannica*, a work whose contemporary editions remain important in the field. Taken together, these compilations form a chain of translation, making them an intriguing corpus for the consideration of Babel and the goal of universality. In this thesis, the treatment of the encyclopedia within the prefaces and entries of these compilations is examined, on the basis that in addition to providing insight into the deliberate intentions of the compilers for their works, these articles also highlight the limitations to their ability to describe the context that they are a part of.⁶ This serves as an illustration of the complexity of the universal project in the encyclopedic genre. We also consider articles on Babel within the *Cyclopaedia*, the *Encyclopédie*, and the *Encyclopaedia Britannica*, which shed light specifically on the universality of the encyclopedic project. Because the compilers do not make the connection between Babel and their own task, their commentary can be assumed to be unaltered by deliberate self-reflection. Therefore, a consideration of these articles provides an unedited viewpoint into the compilers’ conceptions

⁶ Although several of the volumes of the *Encyclopédie* contain prefatory material, we consider only the preface found in the first volume, as it represents the most substantial commentary.

of universality. Additionally, we make use of various other articles within the encyclopedias to illustrate the lines of influence among them.

Background

This project emerged from a personal interest in encyclopedias and translation. Because of the connection by translation among the *Cyclopaedia*, the *Encyclopédie*, and the *Encyclopaedia Britannica*, this corpus lent itself to a comparative content analysis, with the view of shedding light on the extent to which these compilations could be seen as source and target texts of one another. It quickly became apparent, however, that a linear approach to translational genealogy raised more questions than it answered.

From this starting point, therefore, the project logically progressed to one of inquiry into the nature of translation in the context of encyclopedias and, more broadly, lines of influence among these works. This led to a consideration of the encyclopedia compilation as transfer; specifically, the transfer by the encyclopedia of knowledge or information to the public, which in turn, called for an in-depth analysis of the complexities inherent in each of these concepts.

In considering these concepts particularly in light of the seventeenth and eighteenth centuries, their instability over time and space and their mutual influence over one another emerged. Arising from this interconnection was the realization that universality was not only unattainable, but perpetually targeted by the encyclopedia. It was hypothesized that this impossible situation is the result of

the very structure of the relationship among encyclopedia, knowledge, and public—not only in its interconnectedness, but in the simultaneity of the influences at play among these three elements, which are themselves in constant flux.

In order to explore this structure further, we related it specifically to the encyclopedias in question, considering the individual contexts in which they were created, and the complexity of their interconnection to one another. In examining the individual compilers behind each of these compilations, the importance of their dual role became apparent, a concept that we explored in relation to translation theory, and specifically, a consideration of translational norms in the time period in question.

This general examination of the role of the translator broadened our conceptions of how translation theory could come to bear on the question of universality in the context of the encyclopedia. Specifically, we explored how the allegory of Babel, well developed in translation theory, could enhance an understanding of the impossible goal of universality in the encyclopedic context.

Extending from this investigation, we determined that an analysis of the entries within the encyclopedias themselves would provide an interesting illustration of the paradox of universality that governs the compilations. This included an examination of articles on Babel and translation, in which the compilers' commentary can be seen as an implicit and accidental self-reflection on their own process, and finally, a consideration of articles on the encyclopedia, in which the reflexive quality can be seen as more explicitly acknowledged. The

latter was supported by the authors' prefatory comments, in which their project of universality, and the contributing factors of knowledge and public, could be considered.

From these analyses, we concluded that the structure proposed and elaborated in relation to translation theory in this thesis is a valuable model in considering the impossibility of the universal project of the encyclopedia, as it takes into account not only the connection among encyclopedia, knowledge, and public, but also the mutual influence and perpetual motion that exists within the system.

Organization

The thesis is organized into several chapters, each of which contributes to an illustration of the cycle of the encyclopedic structure and its orientation toward a universal ideal.

The circularity of the encyclopedic process with respect to its relationship with the public, which takes place via the transfer of knowledge, is examined by way of considering each of these elements.

The encyclopedic genre as a whole is considered from a historical perspective, particularly as related to the ideal of universality. An important channel in the context of knowledge transfer in the Republic of Letters, described in Chapter 2, is the encyclopedia—but the precise jurisdiction of the encyclopedia changes over time. In considering those factors that define the encyclopedic

genre, the changing goals of the encyclopedia are examined; in addition, the whole concept of generic division—a taxonomy born of the same inclination as drives the encyclopedia—is brought into question.

We consider how the seventeenth- and eighteenth-century conception of the public implies excluding factors such as wealth, literacy, and gender, which are reflected in the encyclopedic context. A discussion of how public response to these constraints and participation in spite of them illustrates the inevitable self-propagation of the public, and the fluidity of the public as a concept. The encyclopedia is both a product and an agent of this elusive public participation, which therefore perpetuates the cycle that takes place among encyclopedia, knowledge, and public. The spread of knowledge—the movement toward mass enlightenment—is the method and the motivation by which the public in seventeenth- and eighteenth-century Europe develops and self-defines. The various channels of transmission of knowledge in this context are explored, and special attention is given to the Republic of Letters, which we consider as a living representation of the propulsion toward and by the transmission of knowledge.

The interplay of public and encyclopedia is brought further to the fore in considering a brief history of the three encyclopedias in our study and the different factors surrounding the production of these works, and in examining the genealogical linkages that exist among them. Each compilation is the work of an individual or group of individuals, themselves members of both the public that they seek to represent and the audience of previous encyclopedias; this serves as a reminder of the impossibility of sidestepping membership in the public and the

inevitable hopelessness of universal representation. In examining the lines of influence at play, the role of the compiler as both sender and receiver of public discourse is highlighted, solidifying the loop of the mutual cause-effect relationship of encyclopedia and public. The complexities inherent in the relationships of influence among encyclopedias relate directly to the obscure figure of the compiler. Reflection on the part of the compilers as to their contributions and the originality of their works also enhance an understanding of the unique authorial situation in the encyclopedic context.

The compiler's dual role, and the resulting tensions that arise in the context of a project of universality, suggest parallels with the role of the translator with respect to source and target text. Norms as a general translational concept are discussed, and the specific norms operating in the context of translation in seventeenth- and eighteenth-century France and Britain are considered. From this perspective, the relationship between translation and encyclopedia compilation is situated according to the project of universality, which as a broad social norm, is reflected in translational norms of the time.

Arising from the necessarily hybrid role of the compiler, and more generally from the complexities associated with authorship and influence within the encyclopedic context, the paradox intrinsic to the encyclopedic project can be seen as parallel to the Babelian contradiction that manifests itself in translation. Universality in this context is twofold, referring to total accessibility of participants and self-contained completeness, which itself carries an implication of the promise of objectivity. Babel stands as the representation of the paradox of

the ideal of total (universal/universal) communicability, while the encyclopedia operates under the paradox of the ideal of total (universal/universal) knowledge. Translation theory provides access to a new way of thinking about the encyclopedic structure proposed, and the impossibility inherent in a project that holds as its ideal universality and objectivity. Highlighting the indivisibility of the encyclopedia from the other elements of knowledge and public within the system proposed, reflections on Babel, an important allegory in translation theory, as found within the entries themselves are considered. This points to the complexity of the structure of the relationship among encyclopedia, knowledge, and public, as the encyclopedias strive to describe what is arguably the form of their undoing. Similarly, representations of translation and the translator are considered in this chapter, which presents an interesting complexity as the compiler, in failing to acknowledge the connection between compilation and translation, can be seen as unwittingly describing his own process. This discussion sets the foundation for our exploration in the following chapter of the more conscious commentary of the compilers on the topic of the encyclopedia within the prefaces and entries of their works.

This reflexivity of the encyclopedias is explored in depth in the final chapter of this thesis, where commentary on the encyclopedia in general, and on each compilation in question, found within the prefaces and the entries for topics related to the encyclopedia, are considered, with specific emphasis on the concept of universality as treated by the compilers. Whether the authors comment on their own limitations with respect to the compilation process or fail to recognize the

loop in which they are caught, their prefaces and entries provide a backdrop for the consideration of the intricate relationship that exists among the encyclopedia, knowledge, and the public.

These commentaries can be seen to bring each encyclopedia “full circle,” just as they do for the thesis: in discussing a structure that itself defies linearity and discrete categorization, the structure of the thesis can be seen to naturally follow the cyclical structure innate within the encyclopedia, and in the relationships involving it. In fact, the opening chapter, “The Recursive Structure of the Encyclopedic Genre,” which makes comments on the history of this genre, particularly as related to the ideal of universality, can be seen as a point on a loop following naturally from the final chapter, “In-text Reflexivity: Encyclopedia, Knowledge, and Public,” in which we focus on the compilers’ comments on universality as found within the prefaces and entries of the encyclopedias themselves.

Chapter 1. The Recursive Structure of the Encyclopedic Genre

The recursive configuration that characterizes the relationship among the encyclopedia, knowledge, and the public is intrinsic to the encyclopedic structure itself. As a consequence, changes in conceptions of knowledge and public over time and across contexts result in changes to encyclopedias, which have the domino effect of promoting changes in knowledge and public, and so on. Ultimately, it is the encyclopedia's response to and influence over knowledge and public that lead to the paradox of the encyclopedic enterprise.

The term encyclopedia—meaning “the Circle, or Chain, of all Sciences and Arts” according to Chambers (1: 307) and “the circle or compass of arts and sciences” according to Smellie (2: 301)—implies the encyclopedic desire to surround some totality, and also serves as an etymological reminder of the predestined paradox that the encyclopedia falls into.⁷ A document that seeks in its worldly pages to capture the infinity of all knowledge, the encyclopedia is fated to incompleteness by its very definition.

It is not surprising, then, that the principles of classification governing the encyclopedic genre also follow this same recursive garden path. Created by and for members of the reading public, every compilation is deeply entrenched in its own socio-cultural milieu, resulting in texts that are as varied as the very individual conceptions of knowledge belonging to these contexts or even to

⁷ All quotations from the *Cyclopaedia*, the *Encyclopédie*, and the *Britannica* are included in this thesis without alteration, meaning that spelling and punctuation conventions are presented in their original form. In addition, there are instances in these early texts of uncommon pagination practices, which are also preserved.

individual compilers. Yet collectively these works strive toward the common goal of capturing or encircling a body of knowledge that is complete—and by extension, objective—by some (shifting) standards, and disseminating this knowledge to “the public,” the parameters of which are unstable. In fact, the fluctuating quality of the encyclopedia over time and across contexts—its adaptability to and dependence upon the environment in which it is created—and its orientation toward the collation of complete and objective knowledge for a universal audience, is an essential characteristic of the encyclopedic genre. In other words, the tension arising from the subjective compilation striving toward the impossible goal of objectivity is a defining feature of the encyclopedia.

It follows from the double agency of the encyclopedia as cause and effect of socio-cultural context that it has undergone various changes over time. The encyclopedia is both the result and the impetus for changes to knowledge and public. These three elements are locked in a contract where changes to one necessarily put into motion a process of development of the entire system. So, it is the interplay of encyclopedia, knowledge, and public that remains constant, despite changes that follow from alterations to these elements.

The first encyclopedic works were primarily pedagogic in nature, with an aim of completeness in this specific domain; specifically, early encyclopedias aimed to offer “an all-round education within the bounds of a single work” (Collison 21). This tradition is indirectly attributed to Greek philosophers such as Plato and Aristotle. Though they did not write encyclopedias *per se*, Robert Collison credits Aristotle with “an encyclopaedic approach” and notes that “the

fragments of the first encyclopaedic combination are the work of [Plato's nephew, Speusippos], but the words are Plato's" (22). In fact, the very designation of encyclopedias as such is rooted in the pedagogic tradition. The word *encyclopedia* designated "the course of learning appropriate to the educated person. In fact, as late as the seventeenth century, the term 'encyclopedia' usually referred not to a single work but to the range of subjects an educated person should pursue" (Yeo 2001 7). While the stated goal of a complete education was agreed upon, the details of what this should include was debated over time. The tension existing between subjective viewpoints and objective goals was therefore already in place in the earliest encyclopedias. Furthermore, the implied audience of such works was limited to those seeking an education.

During the Middle Ages the curricula of the *Trivium*, comprising grammar, logic, and rhetoric, and the *Quadrivium*, comprising geometry, arithmetic, astronomy, and music, governed ideas about education and therefore served as an initial model for encyclopedias of this time period, which were eventually expanded to include other disciplines. Despite the importance of the *Trivium* and the *Quadrivium*, these were "regarded in the Middle Ages as subservient to the study of the Holy Scriptures and theology" (Collison 44). Therefore, it is not surprising that encyclopedias of this time period were characterized by a spiritual function. Based on the assumption that knowledge leading to sacred and moral truths had been possible in Eden, encyclopedias came to be seen as a way of recovering this lost information: "In this context,

encyclopaedias were safeguards against losing again the knowledge that had been regained since the Fall” (Yeo 2001 3).

This perspective illustrates the myth of objectivity at play in encyclopedic compilation. The notion of any self-contained body of knowledge denies the inherent subjectivity not only of knowledge itself, but also of the collector of knowledge. In both the educational and the spiritual dimensions of the medieval encyclopedia, the focus was on communication as unbiased transfer. Because of the backward-reaching orientation of these works, there was a perception that all knowledge could be accounted for, a point of view that neglects the subjectivity inherent in the selection process.

During the Renaissance, compendia of knowledge expanded to include information beyond the *Trivium* and *Quadrivium*, though the role of these compilations as syllabi of learning remained central. Richard Yeo cites the *Cursus Philosophici Encyclopaedia* (1620) by Johann Heinrich Alsted (1588–1638) as marking a shift in the role of the encyclopedia: while the principal function of this work remained a course of learning, “the expanding content betrayed a shift towards the goal of near-exhaustive coverage” (Yeo 2001 9), suggesting that if the Middle Ages lent to the encyclopedia a false flavour of objectivity, the Renaissance helped to solidify its drive toward totality.

The aim of complete coverage and the demand for the inclusion of new information altered the encyclopedic genre. Whereas knowledge had previously been seen as divinely prescribed, and therefore of a finite size, encyclopedias of

this period had to contend with information that was ever expanding.⁸ There was a new orientation to the encyclopedia: it was no longer aimed at past knowledge but moving toward future progress. Yet the goal remained one of appropriation, as if knowledge—past or future—could be completely encircled.⁹

The push toward accounting for new information and distributing this specialized knowledge to the public contributed to the emergence of the dictionary of arts and sciences. These works did not include historical or biographical content but aimed at covering a wide range of different fields of knowledge, marking an interesting example of the ebb and flow of parameters of “completeness.” Although the dictionary of arts and sciences did not aim to cover all information, its goal was still one of universality, albeit within a prescribed arena. The organizational conventions established in these works also constitute an important contribution to the tradition of the encyclopedia.

The characteristics of the dictionary of arts and sciences—namely, its accent on specialized fields of knowledge, and its use of alphabetical order—betray the influence of the hard word dictionary of the seventeenth century, which emphasized words that presented the reader with difficulty: “no systematic attempt was made to include the ordinary words of the language (words such as *book*, *cart*, or *stone*) before 1700” (Osselton 16). Specifically, hard word dictionaries placed emphasis on borrowed words or inhorn terms. With respect to the earliest monolingual dictionaries of English, which established the hard word tradition, Ronald A. Wells explains:

⁸ The connection between this conception of knowledge and the allegory of Babel is addressed in Chapter 6.

⁹ See Yeo (2001, Introduction).

Increased commerce, exploration, travel, and numerous translations of foreign writings led to many new borrowings; more important, the freedom of coinage, and the conscious literary efforts to enrich the lexicon that gave birth to ‘inkhorn terms’, sharply pointed up the necessity of a work explaining the new accessions to the vocabulary. Thus the first English dictionaries were dictionaries of ‘hard words’; their purpose was to explicate the meanings of the many new terms in the language (16-17).

This showcases how the hard word dictionary both responded and contributed to an influx of new knowledge, and in so doing, instructed and was informed by the public.

In addition to the focus on borrowed and newly coined words, hard word dictionaries addressed technical terms. The title page of Thomas Blount’s *Glossographia*, published in 1656, advertises that the work will address “Divinity, Law, Physick, Mathematicks, Heraldry, Anatomy, War, Musick, Architecture; and of several other Arts and Sciences.” The emphasis on technical terms of the hard word dictionaries paved the way for dictionaries of arts and sciences, such as Furetière’s *Dictionnaire Universel* and Chambers’s *Cyclopaedia*, which would inspire the work of major encyclopedias, such as the *Encyclopédie* and the *Encyclopaedia Britannica*. Although the *Cyclopaedia* is considered to be a dictionary of arts and sciences, the three compilations in this thesis are generally referred to as encyclopedias. This is largely due to the “fluid boundary between dictionaries and encyclopaedias in this period” (Yeo 2001 19) arising partly from

the encyclopedic slant of hard word dictionaries, the ancestors of encyclopedias: “Because hard words required illustration and explanation, rather than mere translation, the distinction between words and things was often breached” (Yeo 2001 19). The overlap between encyclopedias and dictionaries during this time period is illustrated in the entry for “Cyclopaedia” in the *Encyclopaedia Britannica*, which refers readers to the entry for “Dictionary” (2: 301). Similarly, in his entry “Dictionnaire” in the *Encyclopédie*, D’Alembert draws parallels between «Dictionnaires de Sciences & d’Arts» and encyclopedias (4: 968).¹⁰

The eighteenth century is known as the age of encyclopedias (Yeo 2001 11), not only because of the encyclopedia’s importance in the transfer of knowledge and the development of the public, but because the features commonly found in contemporary encyclopedias had been initiated by this time: “Most of the developments that characterise the modern form of the encyclopaedia occurred by the first quarter of the nineteenth century: the arrival of multi-volume works, serial publication, selling by subscription, the transition from single compilers to editors recruiting expert contributors, and the attempt at total (rather than selective) coverage were in place by that time” (Yeo 2001 13). Hard word dictionaries and, later, dictionaries of arts and sciences had promoted progress and the dissemination of new knowledge to a wide readership. As the scope of knowledge grew, in large part due to scientific inquiry, works of reference struggled with the challenge of how to fulfill this role, and became more specialized themselves (Yeo 2001 142); furthermore, dialogue among different

¹⁰ Although we do not address the distinction in depth in this thesis, the relationship between the encyclopedia and the dictionary of the eighteenth century is significant here.

branches of science decreased, as areas of study became narrower and more specialized, which necessarily affected the intended audience of the encyclopedia. Ironically, in trying to capture all of knowledge, the encyclopedia was forced to sub-select its audience, and in doing so, compromised its all-inclusive promise of universality both in terms of content and audience. The further the encyclopedia went in its goal toward universality, the more minute and exclusive it became in its subject matter and audience.

Providing information both comprehensive and digestible enough to fulfill the role of a course of learning proved to be a virtually unattainable goal. This presented a challenge to compilers: “since he believed that the sciences illuminated each other, Chambers was reluctant to abandon the ideal of polymathy, thus leaving an unresolved tension between the increasing scope of ‘universal’ knowledge and the compass of the ‘encyclopedia’ that an educated individual should seek” (Yeo 2001 142). Chambers’s response to this tension may explain the succinct style of his compilation in relation to the *Encyclopédie*—and to a lesser extent, the *Encyclopaedia Britannica*—and the common designation of the *Cyclopaedia* as a dictionary. In the *Cyclopaedia*, as Chambers explains in his preface, “a Chain is carried on from one End of an Art to the other, i.e. from the first or simplest Complication of Ideas appropriated to the Art, which we call the *Elements* or Principles thereof; to the most complex or general one, the *Name* or Term that denotes the whole Art” (1: i). Chambers explains the concept of a *term*, noting:

Now, what we call a *Term*, consider'd as to its Nature and Origin, is no other than "a Word which denotes an Assemblage, or System of Ideas relating to some one Point, which the Mind artfully complicates or associates together, for the conveniency of its own Operations." Or, "a Word which comprehends several Ideas under a certain Relation to each other, whereby they represent some complex piece of Knowledge to the Mind for the conveniency," &c. Or, "it is a Word, which holds several different Ideas combin'd together in a Relation such as they appear'd under when the Mind first consider'd 'em as a standing Phænomenon, and took Measures to have 'em fix'd or retain'd in that Quality."

The Effect of *Terms* is, that by virtue thereof, we are enabled to receive, or communicate Knowledge with more ease and dispatch; forasmuch as having proper Combinations thereof always ready made, we are saved the Necessity of beginning *de novo*, and detailing it in Individuals: much as in Arithmetick, to avoid the Embarrass of a large Number of Units, we tell by Tens, or Sixties, or Hundreds: With the like View, on some occasions, we make up certain Sums of Money in Rouleaus, or in Purses; and thus pay and receive 'em, without the Trouble of telling or enumerating the Contents (1: xix).

Chambers's quote reads as a testament to the currency or language of the encyclopedia; the encyclopedia is presented as a representation and shorthand of

the world, facilitating the communication of knowledge among members of the public. With respect to Chambers's emphasis on terms, Yeo notes that "his approach to natural knowledge, or at least natural philosophy, suggests that he can be seen as a 'builder' in his own way—breaking down sciences into terms, yet also reconstituting them as part of a 'System'" (2001 169).

Chambers's preoccupation with the accessibility of knowledge betrays an attitude that would contribute to the role of the encyclopedia within the Enlightenment context. Spreading knowledge to the widest possible audience rather than simply the upper classes was a goal of the encyclopedia that was consciously executed in the eighteenth century.¹¹ In this sense, not only is the encyclopedia a product of the context in which it is created, but it also contributes to the shaping of this context and serves in this way as the ultimate representation of it. This is especially true of the *Encyclopédie*: «l'Encyclopédie illustre à elle seule, comme une sorte de paradigme, le XVIIIe siècle» (Goulemot 131).

If the *Encyclopédie* stands as a symbol of the eighteenth century, it is because of the profound impact that it had upon its social context. The *Encyclopédie* marked a turning point in the development of encyclopedia compilation, and served its own unique functions: "[Diderot] had finished one of the greatest literary enterprises in the whole history of mankind, he had revolutionized the concept of the encyclopaedia in the world of learning and, though he may not have intended it, he had contributed very substantially by his work to the French Revolution itself" (Collison 131). Highlighting what he views

¹¹ Yeo further notes the significance of the use of alphabetical order, also used in dictionaries of arts and sciences, in the *Encyclopédie*, noting "Since it avoids the hierarchies of systems, the alphabet is thus seen as egalitarian, reducing all subjects to the same level" (2001 25).

as the deliberately political and subversive role of the *Encyclopédie*, Warren E. Preece remarks, “In France, D’Alembert and his associates believed that the wide dissemination of the new ‘truths’ of a new fulminating science could be a weapon in the fight to liberate man from what they took to be the twin evils of landlord and clergy” (3-4). Though the project was initially designed as a direct translation of Chambers’s *Cyclopaedia*, it ended up as a highly ideological document of which the subjective tone largely overshadows the factual information of its predecessors. Ironically, then, the *Encyclopédistes* can be seen as playing off Chambers’s project of an accessible, universal, and, by implication, objective work to promote their own subjective views. From the standpoint of the philosophical ideals underlying the project, the *Encyclopédistes* were highly successful:

ils ont agité les idées, bousculé les consciences, imposé la discussion publique, haussé le débat. Ils ont informé, expliqué, aéré la connaissance, étendu la communication. Ils ont accru l’audience, éveillé l’intérêt, soulevé les questions. Ils ont donné aux sciences une dimension qui a révolutionné les esprits: ils les ont ouvertes, les ont reliées entre elles, les ont classifiées. Ils ont présenté, illustré ce qu’on appelle aujourd’hui les beaux-arts, les arts décoratifs, les arts et métiers et tous les artisanats. Ils ont apporté la Connaissance à domicile (Haechler 383).

The *Encyclopédie* served a critical social function in promoting conversation and debate in order to encourage political change. Bringing knowledge «à domicile»

allowed for the discussion of new ideas in the private sphere among a wider range of individuals, which contributed to the development of the public voice.

The eighteenth century marked a turning point in the development of the public sphere as the result of the increased trafficking of knowledge, and encyclopedias in general played an important part in this dialogue. It is fitting therefore that the encyclopedia is caught in a middle ground between public and private. Any writer is bound by the limitations of his or her personal context; these biases are nowhere more clear than in the case of the encyclopedia, where the compiler expresses his personal views on the organization and hierarchy of knowledge both implicitly and explicitly, by the microstructure and the macrostructure of the work and by visual representations such as maps or trees of knowledge. Yet in its goal of universality of subject matter, there is an implication of impartiality, which challenges the subjective and therefore private quality of the document. Furthermore, the encyclopedia's orientation toward a wide audience locates it squarely in the realm of the public. Ironically, the compiler's conception of what constitutes a truly public audience betrays his own personal viewpoint: for example, Chambers's targeted audience implies "Men of Letters" and, more generally, "the Body of a People" (1: ii) and the *Encyclopaedia Britannica*'s suggested readership extends to "any man of ordinary parts" (1: v). The individual biases implied in the targeted public have the effect of closing the circle of private/public, and subjective/objective.

* * *

While encyclopedic texts have shared an emphasis over time on disseminating knowledge to the public, both the notions of knowledge and of public have changed. The interconnection of the encyclopedia and public via the channel of knowledge inevitably results in the plurality of specific encyclopedic tasks over time and place: “Encyclopaedias may be undertaken, as in Classical Greece, to ‘make a man whole,’ as in Medieval Europe, to ‘make a man Christian,’ as in eighteenth-Century France, ‘to make a man free’” (Preece 1). Despite their differences in emphasis, however, encyclopedias are united by their interconnection with public and knowledge. It is due to this interconnection, and the inevitable paradox that arises from it, that encyclopedias can be considered as forming a unified genre.

Ironically, the encyclopedic genre, itself an emblem of organization and classification, eschews classification. This is because of the paradox that is intrinsic to and resulting from the encyclopedia’s interconnection with the public and the channel of knowledge. Thus, even in its characterization, the encyclopedia finds itself in a paradoxical situation, in that it is by its very changeability—and by extension, its resistance to classification—that it can be classified.

Chapter 2. The Exclusive Public¹²

The paradox of the encyclopedic project stems from its interconnection with the public via knowledge. In seventeenth- and eighteenth-century Europe, the public was in a state of development and self-refinement and, by extension, fluidity, through opportunities for new forms of social interaction (Jacob 95). The encyclopedia represents one such form of communication, and in this way influenced and was influenced by the public. In response to the inconsistencies and changes that it necessarily impacts on the public, the encyclopedia is therefore destined to fall short of its universal goal.

The exact date of the emergence of public consciousness as distinct from ties to family and state is difficult to pinpoint. It is widely held that forums of public interaction such as salons and scientific societies had developed in England by the late seventeenth century and spread to France in the early eighteenth century (DeJean 37; Jacob 96). It is debatable, however, whether the presence of these gatherings signal the emergence of the public or rather a reaction to a public mentality that was already established; Joan DeJean comments for example that “the development of a publicly critical culture was largely in place before the Enlightenment was launched” (37). Herein lies the paradox inherent to the structure of the public itself, as public modes of communication serve to establish and refine existing predispositions toward public association. As the public self-

¹² Consideration of the public sphere is focused in the context of France due to its influential cultural position over the rest of Europe during the eighteenth century (Lough 1960 4).

defines through social interaction it also excludes, and in this way frustrates its own implied accessibility.

The Republic of Letters

The Republic of Letters is defined in the *Cyclopaedia* as “a Phrase used in speaking collectively of the whole Body of the People of Study” (2: 996), and more recently as “an international intellectual community, cosmopolitan, egalitarian and sociable in nature, extending back to the ancient world, and reaching all over Europe to include men of letters and science everywhere” (Kettering 121).¹³ Generally, then, the Republic of Letters can be understood as the social body that actively participated in the discourse of the Enlightenment, in various forms and forums, and particularly through the epistolary mode, which enabled the association and cooperation of individuals from across the world. While the Republic of Letters of the early modern period initially developed as a sphere for the sharing of intellectual information, its focus shifted in the early eighteenth century toward the more political. This emphasis was a logical extension of the interaction that the Republic of Letters encouraged: “After 1715, men of learning began to turn their skills of inquiry and debate to the previously neglected topics of public policy and government action, and began to criticize

¹³ Despite Kettering’s suggestion of its ancient origins, Goodman sees it as “a modern phenomenon”: “References to the *Respublica literaria* have been found as early as 1417. Nevertheless, the *concept* of the Republic of Letters emerged only in the early seventeenth century and became widespread only at the end of that century” (Goodman 14).

the crown's policies and decisions, which led to public political opinions for the first time" (Kettering 121-122).

The Republic of Letters is intimately connected to sociability, the interaction among members not only of different geographical milieus but also of varied social classes for the purpose of sharing ideas and disseminating knowledge. To some extent, the Republic of Letters can be seen as staying true to its democratic roots, challenging barriers of time and space, and contributing to a "levelling of ranks, at least among the people who qualified for admission to 'le monde'" (Lough 1960 264). As implied by the proviso, this public body was not entirely inclusive, restricted as it was by factors of literacy, wealth, and gender. In some cases, however, these constraints were challenged and overcome by members of the public who found ways of participating in public discourse despite them.

The encyclopedia therefore targeted a public that was, on one hand, exclusive and, on the other, ever-changing in its response to this exclusivity; furthermore, the encyclopedia was an agent of this widening of the public sphere despite restrictions. The encyclopedic aim toward universality of audience is bound by changes to the public, and these changes to the public are effected in part by the encyclopedia. In this way, the encyclopedia and the Republic of Letters can be seen to inhibit by their interaction their shared project of universality and objectivity, as they raise the stakes of the knowledge and information that the other must account for.

Literacy

The term *république* is defined in the *Encyclopédie* in the following way: «forme du gouvernement, dans lequel le peuple en corps ou seulement une partie du peuple, a la souveraine puissance» (14: 150). Although the term implies a spirit of equality, the second part of the *Encyclopédie*'s definition is crucial, taking into account the implied exclusivity of the Republic of Letters.

Literacy was one factor that excluded individuals from public participation in the Enlightenment discourse. The importance of written media in the communication of ideas, including the encyclopedia and particularly epistolary correspondence, meant that participation was restricted to the minority of French citizens who were literate¹⁴: “Only literacy, enhanced by access to learned opinion about books and journals that told what was worth reading, offered full citizenship or conferred identity within the anonymous public sphere” (Jacob 100).

Letter writing continued throughout the eighteenth century as an important activity in the dissemination of knowledge to the reading public at large, and therefore to the exchange of ideas in general. Furthermore, it served as the basis for other written modes of communication popular in the Republic of Letters such as the newsletter and the journal (Goodman 137).

The recognition of the importance of public opinion implied by the epistolary form contributed to closing the gap among social classes, and invited

¹⁴ See Lough for an approximation of the illiteracy rates in France from the end of the seventeenth century to the end of the eighteenth century (1960 235-236).

the active involvement through writing of the public in popular debates: “This vibrant epistolary network was a two-way street, as readers responded to writers, becoming writers themselves in pamphlets and in the columns of an emerging periodical press that was itself an institutional extension of the epistolary network” (Goodman 138). Thus, the epistolary form not only privileged public opinion, but also intensified public engagement in contemporary issues, thereby ensuring a continuous system of public authority by the literate members of society.

Another important form of written communication in the Republic of Letters was the work of reference. Works of reference such as dictionaries and encyclopedias provided the general reading public with access to customized and searchable knowledge and ideas. By their very format, works of reference demand active engagement from their readers, who tailor the information that is transmitted through random searches and selected chains of cross-references.

Works of reference in the Republic of Letters were designed for the public and addressed them as such. As early as in the first three monolingual dictionaries of French—*Dictionnaire françois*, by Pierre Richelet (1680), *Dictionnaire Universel*, by Antoine Furetière (1690), and *Dictionnaire de l’Académie françoise* (1694)—the importance of the general public is made explicit by the lexicographers who, according to DeJean, agree on their characterizations of the public, though she remarks that such a consensus is unusual: “Given the very different sources from which they came, it is hardly surprising that these three compilations are seldom in complete agreement in their presentation of key

words. The complicated case of *le public* is, however, one of those rare instances” (33). A closer examination suggests, however, that the authors may not be in such complete accord: typographically, the lowercase «public de Lecteurs» addressed in the preface to Furetière’s dictionary suggests a different audience than the «‘Public’ [du *Dictionnaire de l’Académie*], ensemble de citoyens-sujets» (Collinot 19). The question of the public as selected and defined by these works raises the issue of the encyclopedic bent toward universality. Because compilers are themselves members of the (exclusive) public, their individual conceptions of what constitutes a “universal” public are biased. Compilers cannot shed their public affiliation; the striving toward universality of audience and subject matter is therefore bound to be skewed and incomplete.

The encyclopedia as a written document by definition limits its audience to the literate, yet also serves as the agent and the effect of a broadened engaged public. In some cases, encyclopedias acted as social stepping-stones for their compilers (Lough 1960 248). For writers «à qui les portes des académies n’en sont pas moins fermées par leur état» according to Diderot in the article “Encyclopédie” (5: 635-636), works of reference represented a means of expressing one’s cultural and political viewpoint and thereby entering into the public discourse without the sanction of academies or societies.

The *Encyclopédie* in particular can further be considered a public venture by its inclusion of numerous contributors. While any encyclopedia compiler is bound to be a member of the public, the *Encyclopédistes* formed their own plural

society; this particular compilation can therefore be seen as a public process.¹⁵ Just as collaboration in the *Encyclopédie* made explicit the public participation of the compiler, the public participation of the reader was made clear by the practice of subscription: “The very means by which the *Encyclopédie* was marketed to the public brought together the notions of readership and association” (Goodman 32). This practice may not have been a deliberate choice on the part of the principal editor however—though Dena Goodman notes the “great enthusiasm” with which Diderot discusses this concept in the entry “Souscription” in the *Encyclopédie* (32), a reading of this article reveals no obvious encouragement for the practice. In fact, Diderot writes, «En Angleterre, les *souscriptions* sont très-fréquentes, & cette habitude les a rendues sujettes à quelques abus qui commencent à les décréditer» (15: 417).

Because of the importance of the written document in the Republic of Letters, literacy was an unavoidable prerequisite for participation in the debates and discourse of the time. An essential mode of the transfer of information in this context, the encyclopedia’s compiler and audience are by definition restricted to the literate. In this way, the encyclopedia is limited in what it communicates and to whom, compromising its project of universality of subject matter and audience.

¹⁵ The *Encyclopédie* was not alone in this endeavour: in preparation for the second edition of the *Cyclopaedia*, Chambers invited contributions from the public (Yeo 2001 122). Furthermore, Chambers expressed an interest in accomplishing with his work the function of multiple minds: “he wanted to improve his work so that it could perform the function of an academy” (Yeo 2001 121).

Another important restriction limiting participation in many forums of public discourse was related to financial circumstances—there were entry fees, if indirect, associated with the Republic of Letters:

Large numbers of the literate were also excluded from effective membership in civil society because money was required for membership in salons, societies, and lodges and attendance at theaters: if not money for initiation or entrance fees, then for dress, for the learning of decorum, for gifts given, books purchased, for commodities as necessary but expensive as fine paper, good quills, and stamps (Jacob 100).

The relative restrictiveness of certain loci of communication in the Republic of Letters paved the way for more accessible forums, such as the *musée*, formed in the late eighteenth century. Here members of the public could interact with each other and explore new ideas, such as those found in the *Encyclopédie* (Lynn 471-472), through books, objects, and lectures (Lynn 463). Essentially, the circulating library or *cabinet littéraire* (Lough 1960 245) fulfilled the same purpose, but was limited to books: «N’avez-vous point de bibliothèque? Pour quatre sols vous vous enfoncez dans un cabinet littéraire, et là, pendant une après-dînée entière vous lisez depuis la massive *Encyclopédie* jusqu’aux feuilles volantes» (L. S. Mercier qtd. in Lough 1960 245).

What set the *musées* apart from other forums of communication such as academies and salons was their relative inclusiveness—their “new democratic spirit, where a letter of introduction was not required for admission, where the aristocratic rules of polite conversation did not obtain” (Goodman 233). Economic constraints were somewhat moderated—although visitors were charged for the use of services of the *musée* and the *cabinet littéraire*, the fees did not compare to the costs associated with membership in polite society: “Never could so much Enlightenment be attained in one location and for such a low price” (Lynn 472)—and to such a wide range of customers.

The *musées* were instrumental to the public’s awareness of and reaction to the principles that would become the basis for political change in France: “In the history of the Republic of Letters, the *musées* took the place of Enlightenment salons, continuing the quest for an autonomous social base articulated in the *Encyclopédie* and extending the project of the Enlightenment to be carried out through it” (Goodman 234). In the context of the *musée* or the *cabinet littéraire*, a new dimension is added to the encyclopedia’s interconnection with the public: that of debt. It was by public distribution and participation that the encyclopedia was able to reach a widening readership and in so doing to draw closer to its ultimate though unattainable goal of universality.

Because the activity carried out in polite society was inaccessible to many, the demand arose for more economical opportunities to interact in the discourse of the time, and this demand was met by enterprising members of the public. The call for and development of such occasions signals a new level of public

engagement in Enlightenment discourse. The public's self-definition in response to the excluding factor of financial means therefore contributes to the ever-expanding and oscillating boundaries of the public *engagé*.

Gender

The plural and fluctuating role of women in the Republic of Letters represents another shifting parameter of exclusivity in this context. In some ways, eighteenth-century Enlightenment culture provided an unprecedented opportunity for women to participate in contemporary social culture. Specifically, qualities perceived as feminine provided women with a point of entry into the Republic of Letters:

The realm of the feminine appeared as an alternative form of power to that of money and rank, which were male-dominated: the new individual's value was represented in terms of her qualities of mind. Paradoxically, it was women's disenfranchisement from the dominant political order which made it possible for them to be molded into a model for the new, modern individual (Agorni 818).

Thus, what had previously excluded women from the public realm was what now provided them access, a testament to the fickle constraints of public involvement during this time.

Emerging from the tradition of letter writing, the salon provided an opportunity for face-to-face contact, the social translation of epistolary genre. The

salon, governed by a *salonnière*, served as an area of politeness where topics could be discussed in a civilized way and in this way served as a fixed arena in which the values of politeness could in theory prevail to govern the intellectual exchange of ideas. The fact that salons were hosted by women was one of their defining characteristics. Women were assumed to naturally possess the virtues that members of *le monde* wished to cultivate, which lent themselves to the forum of the salon; for example, modesty, selflessness, and a desire to avoid conflict. Over the course of the Enlightenment period, however, these virtues lost their cachet:

While for 17th century “feminists” such as Jacques Du Bosc, the women’s lack of formal knowledge was a source of their superior intuition and therefore of insightful judgment in matters of taste, for the philosophes in the mid-eighteenth century the lack of knowledge was the main reason for the exclusion of women from the circle of legitimate judges. Good taste was no longer gendered female (Pekacz 291).

Thus not only were the requirements for participation in the Enlightenment different for women than for men, but these fluctuated over time. In addition to a de-privileging of the feminized qualities associated with polite society, there was discomfort over the power, however symbolic, of the *salonnière* in her governing role:

[The *philosophes*] were caught in the web of conflicting paradigms of the female, seen as at once the source of both order and

disorder. This difficult position resulted in part from the location of the salon in the home, the locus of the family. Women, understood to be the source of disorder in society, were the source of order in the “natural” unit of the family (Goodman 106).

The individuals who had prized feminine qualities as an alternative to established standards were unable to completely reject those same standards. Negative attitudes toward the *salonnière* arose from her impossible position, which was itself the result of the conflict between genders: “The relegation of women to formal roles of guardians of manners and propriety, meant to ensure stability and order, made them impose restrictions in the salons which led to tensions between the *salonnières* and their male guests and to the emergence of exclusively male spheres of sociability” (Pekacz 297). Because of the shift away from the values of politeness as well as ambivalent feelings on the part of the *philosophes* over the role of the *salonnière*, the salon eventually lost popularity in favour of the *musée*. Thus the *salonnière*, once an active and important part of Enlightenment culture, lost her power due to shifting boundaries of exclusivity in the public sphere.

The role of women in the Republic of Letters was not limited to salons however; their influence on literary, educational, religious, and moral discourse, as well as the discourse of translation, was significant (Agorni 818). Specifically, while the translation of classical texts was with some notable exceptions largely left to male translators, translation from modern languages was an arena in which women made a significant contribution. Through translation women exerted

intellectual influence and “literally determined the terms of the argument through their translating choices” (Hayes 141). In the arena of translation, this input was acceptable, partly because it could be hidden under the guise of objective transfer; in this way, women’s intellectual input could be ignored.

This question of feminine intellectualism and education was a point of contention in the Republic of Letters, as suggested by Chambers in his article “Woman”: “’Tis a Point much controverted, how far, Learning and Study become the Sex” (2: 377). Chambers’s article brings to light the impossible situation of the educated woman in the context of the Republic of Letters; it is noted that due to the choice of subject matter of their early studies, “Several of the Women remarkable for Learning have been also distinguish’d for their want of Conduct” (2: 377). There are examples of female scholars mentioned in the *Encyclopédie* in the article “Femme,” albeit only four, with the comment that «Quelques *femmes* & filles ont été admises dans les académies littéraires; il y en a même eu plusieurs qui ont reçu le bonnet de docteur dans les universités» (6: 475).

The role of women in the context of the Republic of Letters gives an example of the paradox implied in the public’s self-definition and the exclusivity of the public during the seventeenth and eighteenth centuries. While participation was allowed to women, it was limited and inconsistent, prescribed by established societal standards that were themselves alluded to in the encyclopedias. The shifting degrees of participation in the Republic of Letters permitted to women is an example of how conceptions of the public are not only exclusive but variable in response to this exclusivity.

While the public in any context is bound for instability, the developing public of the seventeenth and eighteenth centuries was specifically marked by shifting boundaries of exclusion. Factors such as wealth, literacy, and gender influenced the level of allowed participation in the Republic of Letters, challenging the notion of public discourse as universally accessible. In some cases however these factors were overcome, resulting in the shifting boundaries and self-propagation of the public sphere.

The encyclopedia as impetus and result of this fluctuation finds itself in a position of trying to catch up with the developments of knowledge and public that it helps to create. In this way, the implied exclusivity and fluctuation of the public sphere in response to this exclusivity participate in the cycle of necessity and impossibility that characterizes the encyclopedic orientation toward universality.

Chapter 3. The *Cyclopaedia*, the *Encyclopédie*, and the *Encyclopaedia Britannica*

Each of the encyclopedias considered in this study holds a unique position in the encyclopedic tradition. The *Cyclopaedia*, in addition to serving as the predecessor and would-be source text of the *Encyclopédie*, was groundbreaking in its use of practices that are now conventions in encyclopedia compilation. The *Encyclopédie* as a symbol of the Enlightenment is representative of the quest for knowledge that was universal and accessible to all that characterized the eighteenth century, and additionally served as the inspiration for the *Encyclopaedia Britannica*, the only work of the three of which editions continue to be published and consulted.

The Cyclopaedia

Ephraim Chambers's *Cyclopaedia*, published in 1728,¹⁶ is credited as one of the most influential encyclopedias in general: "Though to Harris must go the honours of compiling the first true English encyclopaedia, Chambers is clearly the father of the modern encyclopaedia throughout the world" (Collison 103).¹⁷ Serving as a direct and indirect model for several subsequent encyclopedias, the *Cyclopaedia* is less renowned for its individual value as a work of reference than

¹⁶ Bradshaw specifies that the first edition was published in 1727 but bore the imprint 1728 (Chambers 124).

¹⁷ John Harris's *Lexicon Technicum* is generally considered to be the first encyclopedia in English, yet the distinction between an encyclopedia and a dictionary remains significant, as the work can also be considered as a hard word dictionary.

for the significant influence that it has exerted over the encyclopedic genre. For example, S. Padraig Walsh credits the work with having “directly influenced the famous French *Encyclopédie* of Diderot” (39) and “prompted the appearance in 1771 of the ever-famous *Encyclopaedia Britannica*, one of the most authoritative encyclopedias ever to be published anywhere in the world” (x).

Of particular note is the format of the *Cyclopaedia*, and what Lael Ely Bradshaw refers to as “Chambers’ passion for organisation” (*Chambers* 125). For example, the work is exhaustive in its system of cross-references: “[Chambers] thought this system very important in reference books, because it connected ‘the several parts’ of the work and gave it ‘most of the advantages of a continued treatise’ (‘Reference’)” (Bradshaw, *Chambers* 125). Chambers also includes a map of knowledge in his *Cyclopaedia*, a practice taken up by the *Encyclopédistes*.¹⁸

As declared on the title page, the *Cyclopaedia* is intended as “a Course of Antient and Modern Learning.”¹⁹ This perspective of the compilation as a unified whole had also been expressed by Harris, who in his preface portrayed his work as “a Book useful to be *read carefully over*, as well as to be consulted like other Dictionaries occasionally.” The double ambition of the compiler is taken a step further by Chambers, however, in his combining of alphabetical order with the simultaneous presentation of material as “a continued Discourse” (1: i).²⁰

¹⁸ See Yeo for more on the tradition of the map of knowledge, and for a detailed reading of Chambers’s map (2001 132-141).

¹⁹ Yeo notes of Chambers’s subtitle, “This is a direct reference to the pedagogic circle of studies denoted by the Greek word, and its Latinised version as used by Quintilian” (2001 139).

²⁰ It is interesting that Chambers also saw these two functions as reciprocal: “Although favouring the ideal of polymathy that affirmed connections between subjects, he even suggested that new

The systematic nature of the *Cyclopaedia*, and particularly the way that Chambers was able to combine a methodical approach with alphabetical order (Yeo 2001 126) served as a model for subsequent compilations, most notably the *Encyclopédie*: “Diderot and d’Alembert were impressed by Chambers’ attempt to organise his work into a systematic whole, although they often criticised his *Cyclopaedia*” (Kafker 1981 234). Chambers’s approach would also earn him the “reputation as one who transformed a dictionary into an encyclopaedia” (Yeo 2001 129).

Another feature of the *Cyclopaedia* is Chambers’s faithfulness, relative to other compilations of the time, in citing outside sources: “Chambers cites exhaustive bibliographies. Sometimes they are placed at the end of an article; sometimes they occur throughout the discussion, with the pertinent works appearing at the end of each paragraph” (Bradshaw, *Chambers* 125). This is not to say, however, that Chambers copied only from original sources—he was also inspired by existing compilations.²¹ Chambers generally acknowledges this practice, however, and makes a case in his preface for the special role of the lexicographer:

The Work is, what it ought to be, a *Collection*; not the Produce of a single Brain, for that would go but a little way; but of a whole Commonwealth. If any Person will undertake to write a Dictionary, even of some one particular Art, from his own Fund,

relationships were likely to be found because of the way in which the alphabetical order of the *Cyclopaedia* threw things together” (Yeo 2001 141).

²¹ See Bradshaw for examples of Chambers’s copying of the *Lexicon technicum*, sometimes without acknowledgement (*Chambers* 128).

alone; a Man may safely undertake to prove it good for nothing. I do not pretend to entertain my Guests at this rate, with just what my own scanty Barns afford: The whole Country is ransack'd to make 'em the fuller Banquet (1: xxix).

Chambers's assessment suggests therefore that the practice of borrowing in the field of lexicography is an essential feature of compilation.

In terms of the tone of the *Cyclopaedia*, Chambers's style is prosaic and often limited to pure description. Marie Leca-Tsiomis alludes to «une des plus profondes différences qui soit entre Chambers et Diderot», noting of this distinction: «elle est dans la conception même du rôle de l'auteur du Dictionnaire; car 'the Dictionary-writer' n'a, selon Chambers, ni à intervenir dans ce qu'il rapporte, ni à établir les significations» (213).

The popularity of Chambers's work is apparent from the many editions that it underwent; by 1753, a seventh edition of the work, along with a much-criticized supplement written by mathematician George Lewis Scott, had been published, as well as a pirated reprint of the work, published in Dublin in 1742 (Walsh 38). In addition, a nine-volume translation into Italian was produced between 1762 and 1765 under the title *Dizionario universale delle arti e delle scienze*. The work was also expanded by Abraham Rees, who would eventually publish the forty-five volume *Cyclopaedia; or, universal dictionary of arts, sciences, and literature* in 1819-1820.

In addition to the contribution of the *Cyclopaedia* to the encyclopedic tradition, Chambers's success stands as a reflection of the potential for class mobility made possible by the context of the Republic of Letters:

Thus beginning as an employee of a London globe maker and bookseller, Chambers read his way into the tradition of dictionary making, suggested a plan for the efficient collection of scientific knowledge, and produced a work saluted by the leading British scientific and scholarly society, which duly made him one of its fellows. These things could not have happened without both the ideals associated with the Republic of Letters, and the commercial market of eighteenth-century publishing (Yeo 2001 40).

It is therefore fitting that the *Cyclopaedia* should serve as inspiration for the *Encyclopédie*, with its significant social agenda and impact.

*The Encyclopédie*²²

The project was initially conceived by the German scholar Gottfried Sellius, and was intended as a translation of Chambers's *Cyclopaedia*. Though Sellius had some experience translating, his skills were too limited for him to take on a project of such a scale as the *Cyclopaedia*,²³ so he engaged John Mills, a wealthy Englishman who agreed to finance the printing of the work and oversee

²² Information in this section was largely derived from Philipp Blom's *Encyclopédie*.

²³ A contemporary of Sellius wrote of his translation skills: «Quoiqu'il sût assez bien notre langue, il traduisait sans se gêner, à course de plume, se montrant plus attentif à rendre la lettre de son auteur ou le génie de sa langue qu'à le faire bien parler français, ce qui le rendait obscur» (Meusnier de Querlon qtd. in Lough 1971 8-9).

its translation (Lough 1971 7). Together the men went into partnership with the bookseller André-François Le Breton, who obtained the *privilège* that would allow the work to be published.

In the spring of 1745 Le Breton publicized the work in a prospectus in order to solicit subscriptions. The prospectus included sample translations, which had been corrected by an anonymous collaborator—likely Diderot (Blom 37)—due to a lack of proficiency on the part of Mills, who was eventually relieved of his duties, and the original *privilège* cancelled. Le Breton remained dedicated to the project, however, and gained a new *privilège* in January of 1746 (Lough 1971 14).²⁴ After briefly engaging the Abbé Jean-Paul Gua de Malves for just over a year as an editor,²⁵ with the advisory support of Denis Diderot and Jean Le Rond D’Alembert, these latter two were ultimately appointed as editors of the project, with Diderot as the principal editor.

Many setbacks plagued the development of the *Encyclopédie*, including Diderot’s six-month imprisonment in the Château de Vincennes for his *Lettre sur les aveugles*, suspicion arising from the *Encyclopédistes’* association with a student whose doctoral thesis had come under attack for the philosophical ideas that it espoused, and persisting charges of plagiarism from opposing forces. For example, when a prospectus for the work was issued in the fall of 1750, it met with controversy: Père Berthier, the editor of the Jesuit periodical *Journal de Trévoux*, criticized the tree of knowledge that was to be included in the

²⁴ Lough remarks that it was at this time that the scope of the *Encyclopédie* broadened beyond a project of translation, to “a revised and enlarged work,” inspired by sources other than the *Cyclopaedia* (1971 13), though Chambers’s compilation is still considered to be “By far the most important of the works” included in Diderot’s prospectus, published in 1750 (Lough 1971 3).

²⁵ The editorial input of Gua de Malves has been debated (see Blom 39-40).

Encyclopédie, arguing that it had been plagiarized from Francis Bacon²⁶; it has been suggested that this resistance from the Jesuits, who would be constant adversaries of the *Encyclopédie*, was due in part to their not having been asked to consult on the project (Blom 83).

The first volume of the *Encyclopédie* was published in June of 1751, with a Royal Privilege,²⁷ and the second volume, the first in which the Chevalier de Jaucourt acted as a contributor, followed in January of 1752. The third volume appeared in November 1753, and the fourth, fifth, and sixth volumes shortly thereafter, in October of 1754. The seventh volume of the encyclopedia was published in November 1757; shortly afterwards, D'Alembert, who had come under attack for an article deemed offensive, decided to cease work on the *Encyclopédie*, perhaps with the encouragement of Voltaire, who believed that production of the work itself should come to an end, if the editors were not free to work without such criticism. Voltaire also approached Diderot, encouraging him to quit as well, and demanding that he return any documents that could harm his reputation or negatively implicate him. Mere months later, however, Voltaire offered his contributions to the enterprise once again.²⁸

²⁶ In their criticism of the first volume of the work, the Jesuits took a page out of Chambers's book, making use of the metaphor of bees, and noting, "One may harvest the way bees do... but the thievery of the ant, which walks off with the whole thing, ought never to be imitated" (Blom 98-99).

²⁷ See Blom for more on the different types of permissions that could have been granted to the work, and the impact of the new Censor, Chrétien-Guillaume de Lamoignon de Malesherbes, on this decision (88-89).

²⁸ Remarks made by Voltaire in a letter to Nicolas Claude Thieriot are of interest from the point of view of the translation of an encyclopedia as a work dealing with specialized terms. In encouraging the addressee to take on the translation of a book dealing with the philosophy of Isaac Newton, Voltaire writes: "I fancy it will be an easie task to translate it, the language being very plain, and all the terms of philosophy being just the same in french and in english" (Voltaire 320).

Shortly afterwards, D'Alembert reconsidered and resumed work on the *Encyclopédie* on a limited basis. Another crisis, however, was soon to hinder progress of the project. As Enlightenment thought became the object of suspicion, the *privilège* for the publication of the *Encyclopédie* was revoked and it was decided by *Parlement* to ban sales of the *Encyclopédie*.²⁹

Unwilling to abandon the enterprise, the *Encyclopédistes* agreed to continue their work underground. Unofficially Diderot and Jaucourt continued to compile the remaining volumes of the *Encyclopédie*³⁰; ironically, it was in this state of restriction that the project gained popularity:

Despite official opposition, the encyclopedia enterprise continued. It even flourished in its quasi-secrecy. The young men with grand ideas who had set out on the project more than a decade earlier had matured and weathered many storms. [...] Against the odds, the Encyclopedists had become fashionable, even powerful; they constituted the intellectual avant-garde of their day, their well-deserved reputation gilded further by the brilliant aura of martyrdom. Far from being neutralized by the Paris Parlement, the *Encyclopédie* had become fashionable (Blom 267).

It would appear, too, that the governmental powers supported the project, albeit covertly:

²⁹ In a solid, if risky, show of support, the Censor Malesherbes hid the encyclopedic documents in his office, so that they would not be seized when the police came to collect them from Diderot's home (Blom 230-231).

³⁰ D'Alembert had declined to resume his role as joint editor (Lough 1971 27).

What of the less harmless volumes of text? The official view seems to have been that, if they all appeared together, there would be less of an uproar than when they had appeared one at a time. Although at first there was some suggestion that the volumes of text might be printed abroad—in Holland or Geneva, for instance—the government was most unwilling to see the considerable profits of this large enterprise lost to France. In the end, it would seem, the authorities gave permission for the remaining volumes of text to be printed surreptitiously in Paris, although, as we shall see, it intended to keep a close watch on their distribution when they were finally ready for simultaneous publication (Lough 1971 26-27).

In late 1764, when conditions for the publication of the *Encyclopédie* seemed favourable,³¹ Diderot made the disheartening discovery that his work had been altered. Because the last volumes of the *Encyclopédie* had been compiled without official permission, they had not gone through any authorized censoring process, and Le Breton had seen fit to take matters into his own hands, burning Diderot's original work.³² Despite being thoroughly demoralized by the experience, Diderot decided to continue with his work. With the printing of the final volumes complete, and their publication imminent, it was necessary to coordinate distribution of the encyclopedia in a way that would be acceptable to

³¹ See Blom (278-280).

³² The discovery in the 1930s of a copy of the *Encyclopédie*, complete with original proofs, has shed some light on the degree to which Le Breton edited the original work, though the total extent of his corrections is still unknown (Lough 1971 27-28).

the government (Lough 1971 28). Thus appeared the public notice that the printing of the *Encyclopédie*, ostensibly having taken place in Switzerland by Samuel Fauche of Neuchâtel, was complete.³³ An important condition of orchestrating the distribution of the work was that Paris proper could not be implicated: “It was thus that, somewhere in an anonymous barn outside the gates of Paris from 29 March to 23 April 1766, the last ten volumes of the great *Encyclopédie* were shipped to their recipients” (Blom 298).

Le Breton went on to publish a five-volume supplement in 1776-1777, and the *Encyclopédie* itself underwent many reprints and pirate editions, as well as editions in other languages. Ultimately, however, the formidable effort of the *Encyclopédistes* became a casualty of historical oppression, despite the very minor involvement of the *Encyclopédistes* in the French Revolution. Even in the role of impartial work of reference, the compilation did not fare well: “The *Encyclopédie* was consigned to oblivion, a state only occasionally disturbed by academics and collectors of rare books” (Blom 312). Nevertheless, the *Encyclopédie* stands as a valuable historical artifact and a testament to the encyclopedic spirit of the eighteenth century. This work serves as a reminder of the significant social and political influence that can be exerted through the ostensibly objective medium of encyclopedic material.

In total, the *Encyclopédie* lists over one hundred contributors in its *avertissements*, including such prominent figures as Voltaire and Rousseau; thus the compilation stands as an example of a truly collaborative effort. However, in

³³ Blom notes, “The publisher, Samuel Fauche of Neuchâtel, did exist, but it is not clear whether he had any idea of his nominal implication in the great project” (297).

its initial volumes, the authorship of the work was much less diverse than it would ultimately become. Relative to later volumes of the *Encyclopédie*, the variety of contributors in the first volume was limited:

The first volume of the *Encyclopédie* could not yet draw on the network of writers that the editors later had at their disposal: 1,984 of the approximately 4,000 articles in the volume were written by Diderot, 199 by d'Alembert, and, among named contributors, a substantial number each by a good dozen other writers. Only twenty had been written by Rousseau. After Diderot, the most prolific author of all, with 484 articles to his name, was the Abbé Edme Malet (1713-55), one of the most obscure and probably most underestimated of all the Encyclopedists (Blom 94-95).³⁴

In later editions, however, the list of contributors continued to grow and diversify. No stereotype could easily encompass the contributors:

One might spontaneously think that they were a young, bourgeois, and irreligious rabble of mischievous abbés and atheists, people with the most to gain and least to lose from change—people like Denis Diderot, in fact; but that was far from true for the majority of the contributors. [...] Even among the regular contributors, there were considerable differences in social origin, profession, income, and outlook (Blom 141).

³⁴ Malet is responsible for the work, *Select essays from the Encyclopedy*, published in 1772, a partial translation of the *Encyclopédie*.

The collaboration that existed among members of different social circles is befitting of the *Encyclopédistes* intended project, as well as its ultimate status within the history of the Enlightenment.

Encyclopaedia Britannica

The *Encyclopaedia Britannica*, published in three volumes in 1771, was originally devised as a business venture and was inspired by the celebrity of Diderot's compilation. Colin Macfarquhar was a printer and bookseller lacking the funds to finance the project and therefore went into partnership with Andrew Bell, an engraver.³⁵ Bell and Macfarquhar engaged William Smellie, "scholar, printer, editor, and man about town" (J. Wells 43), as the compiler of the *Encyclopaedia Britannica* in 1766.

Smellie appears to have been solely responsible for the compilation of the first edition of the *Encyclopaedia Britannica*, although he was largely inspired by previous works: "he often boasted that he had made a Dictionary of the Arts and Sciences with the aid of a pastepot and scissors by snipping out material from books in his library" (Einbinder 29). Critics have seen Smellie's sole authorship as representative of a failure to exploit the rich cultural milieu in which the *Britannica* was created: "he missed a great opportunity to recruit a large number of contributors, which would have put the first edition in the forefront of learning. Edinburgh in the 1760s was at the centre of the Scottish Enlightenment" (Kafker

³⁵ Kafker notes, "Bell had started as an engraver of letters, names, and crests on plates and dog collars, but had worked up to bigger business ventures" (1994 146).

1994 180). While this may have been a choice on Smellie's part, it is certainly possible that other factors such as his low social status came into play: "Perhaps Smellie at thirty was not esteemed, innovative, or energetic enough to recruit an eminent team. Or maybe Bell and Macfarquhar, at that stage in their careers, were not rich enough" (Kafker 1994 180).

Although Smellie is commonly recognized as being the principal compiler of the work, his contributions were unaccredited within the *Britannica*, possibly due to his unimpressive social status. Further obscuring Smellie's role and the authorship of the work in general is the *Britannica*'s claim of multiple contributors, and the citing of its authorship as "a Society of Gentlemen in Scotland." This statement however, dismissed by Frank A. Kafker as "mere puffery" (1994 149), seems to be universally accepted as an act of publicity, "a pleasant fiction invented by the publishers to add distinction to their work" (Einbinder 30).

The *Britannica* was initially distributed in one hundred parts, issued weekly over a period of about two and a half years. These serials were consolidated by Bell and Macfarquhar into three volumes, and published in 1771. The volumes were also reprinted in London by Edward and Charles Dilly, likely as pirated copies, "the names of the collaborators being prudently omitted from the title" (Collison 139). Despite the marginal popularity that this reprint may imply, the first edition of the *Britannica* was not especially successful. Although it would eventually go on to become the most well-known encyclopedia in English (Walsh 44), the potential of the work was not immediately appreciated:

The bad press it received in London journals was informed by a comparison with Chambers. One reviewer acknowledged the utility of scientific dictionaries and noted their continuing popularity ‘since the days of Chambers’, but found little merit in this recent Scottish example, castigating it as no more than ‘a mere Dictionary of Definitions’, in spite of the fact that it profiled ‘systems’ (Yeo 2001 170).

It is certainly true, however, that the lack of success was at least partially due to the quality of the work itself rather than the sole result of unfavourable comparison: “Smellie’s editing is far from faultless and indicates that he was either rushed or careless. There are plates out of order [...], mispaginations, misspellings of foreign names and places [...], and frequent typographical errors within articles (Kafker 1994 153).³⁶ In addition to these errors in form there are also weaknesses on the level of the content itself, and the work has been criticized for its occasionally fictitious and superstitious content (Walsh 45).

This criticism brings into sharp contrast the shortcomings of the first edition and the success of later editions.³⁷ Ultimately the impact of the first edition on the overall enterprise of the *Britannica* was minimal. Smellie’s personal influence would also prove marginal in relation to the total undertaking, as he declined to take part in the second edition of the encyclopedia, which

³⁶ Some of Smellie’s editing mishaps are particularly significant in the article “Language,” considered in this study: “The editor became so embarrassed by the misprints in the article ‘Language’ that some of the corrections followed immediately in a *nota bene*” (Kafker 1994 153). Furthermore, a review appearing in November 1773 in the *Critical review* regards the articles “Language” and “Grammar” as “poorly written” (Kafker 1994 176). See Kafker for more on reviews of the *Britannica*, and Smellie’s possible reaction to them (1994 175-177).

³⁷ For detailed information on subsequent editions of the *Britannica*, see Collison and Walsh.

marked a turning point in the reception of the work. At ten volumes, compared to the three-volume original, the second edition, edited by James Tytler, was a much more substantial undertaking. With its various modifications, the second edition has been credited with raising the *Britannica* to its prominent status (Walsh 46).³⁸ Despite the minimal success of the first edition, the reputation of the *Britannica* would continue to progress:

Of all eighteenth-century dictionaries of arts and sciences, the *Britannica* is the most recognisable as an encyclopaedia by a modern reader. This perception is informed by three factors, now seen as unexceptional but at the time considered controversial: it included biography (and history) for the first time, in its second edition from 1777; it had a national affiliation in its title, rather than simply the generic labels used by Harris, Chambers and the French encyclopaedists; and, finally, it never carried a map of knowledge, eschewing the classification of the sciences and profiling the main sciences in separate treatises, which it called 'systems' (Yeo 2001 176-177).³⁹

To date, the work has gone through fifteen editions in print, and has been launched as an electronic encyclopedia.

³⁸ This second edition of the *Britannica* would be in direct competition with Abraham Rees's revision and expansion of Chambers's *Cyclopaedia* (Kafker 1994 179). In terms of importance, Kafker places emphasis on the third, rather than the second, edition: "From the third edition on, the *Britannica* became the great storehouse of learning it has remained to this day" (1994 180).

³⁹ Traditionally, biography and history had been treated by dictionaires devoted to this purpose, rather than by encyclopedias (see Yeo 2001).

Though the *Britannica* as a whole has had an undeniable influence on succeeding encyclopedias, its impact as an Enlightenment text is less apparent. On one hand, the first edition of the *Britannica* has been viewed as “a mere printers’ venture” (Yeo 2001 172) by comparison with publications that participate more actively in Enlightenment culture, suffering from minimal contributions and recognition from prominent philosophical thinkers. Furthermore, as noted above, the fact that contributions from well-known figures of the Scottish Enlightenment were not solicited for the first edition of the *Britannica* may suggest a willful refusal on the part of Smellie and the editors to actively participate in Enlightenment exchange. On the other hand, the *Britannica* can be seen as an Enlightenment document by its preoccupation with “education, improvement, utility,” as alluded to in the preface (Yeo 2001 170). The argument is that the *Britannica* appeals to both popular and scholarly interests and in so doing serves as a sort of mediator between the two worlds: “On this view, the *Britannica* can be viewed as an expression of the Scottish Enlightenment just as Diderot’s *Encyclopédie* is taken as a symbol of the European Enlightenment” (Yeo 2001 172). The allusion to the symbolic nature of the document within Enlightenment culture is important here—it portrays the compilation as reflective of Enlightenment values of the time, rather than playing an explicit role in this forum. As an important means of sharing knowledge, the encyclopedia in general stands as a symbol of Enlightenment values such as the promotion of intellectual engagement among members of the public—the *Encyclopédie* represents a

compilation in which the Enlightenment philosophies are also endorsed within the work itself.

* * *

The contextual factors surrounding the compiling and the publishing of the three encyclopedias in question are varied, as is the reception that marked each one. While the situations of authorship, publication, and social agenda are distinct, the encyclopedias are linked to one another in a chain of influence that calls into question issues of influence and subjectivity within the encyclopedic genre.

Chapter 4. Courses of Influence and the Dual Role of the Compiler

The relationship that exists among the *Cyclopaedia*, the *Encyclopédie*, and the *Encyclopaedia Britannica* brings into sharp focus the complexity of assigning chronological influence within the context of the encyclopedia. Because of the distinct characteristics of their production as well as the patent differences that are manifest in the works created, the question of the lines of influence among these three encyclopedias begs for clarification.

The complexity of influence in the context of the encyclopedia serves as a reminder of the dual role of the compiler as sender and receiver of public discourse, such as encyclopedia-sanctioned pronouncements—both implicit and explicit—on the organization of knowledge. In other words, it is by virtue of his inextricable connection with the public that the compiler influences and is influenced by other encyclopedias, which fuels the loop of the mutual cause-effect relationship of encyclopedia and public. This leads to deliberate as well as inadvertent borrowing, and seemingly infinite backward-reaching claims to originality. For example, the entry for “Langue” in the *Encyclopédie*, contains the following quote:

«Il me semble que la *langue* espagnole est une orgueilleuse qui le porte haut, qui se pique de grandeur, qui aime le faste & l’excès en toutes choses. La *langue* italienne est une coquette, toujours parée & toujours fardée, qui ne cherche qu’à plaire, & qui se plait beaucoup à la bagatelle. La *langue* françoise est une prude, mais

une prude agréable qui, toute sage & toute modeste qu'elle est, n'a rien de rude ni de farouche» (9: 262).

Although the passage is attributed to P. Bouhours, a Jesuit priest of the seventeenth century, it appears to be a nearly literal translation of Chambers's assessment of the personification of languages:

The Spanish, a haughty Dame, that piques herself on her Quality, and loves Excess and Extravagancy in every thing, The Italian, a Coquette, full of fine Airs; always appearing dress'd, and taking all Occasions of shewing her Finery: to be admired, being all she aims at. The French, an easy Prude, that has her Share of Modesty and Discretion, but on occasion can lay them both aside (2: 429).

Chambers's passage has no reference, and is therefore assumed to be his own, though he does make a general acknowledgement of his use of outside sources in his preface. There can be no way of knowing whether Chambers's assessment is borrowed from Bouhours, and if it was, whether this borrowing was deliberate. It is possible that such stereotypes were popular during the time period, and that either Bouhours, Chambers, or both, merely set down in writing what was commonly believed.

The compiler, responsible for giving information, also takes in information as a member of the general public; for this reason, the multiple sources that influence him are numerous and complex. Because of the compiler's dual role, it is not possible to isolate encyclopedias or compilers into discrete categories; chronological and therefore linear relationships of influence cannot be

easily established. The relationships of influence that do exist are not fixed, operating as they do on different planes according to various criteria of innovation.

There is no doubt that the *Cyclopaedia*, the *Encyclopédie*, and the *Encyclopaedia Britannica* form a chain of influence, with the former of these works acting as a model not only for the works of Diderot and Smellie, but for encyclopedias in general:

The influence of Chambers's encyclopaedia has been incalculable: Diderot's *Encyclopédie* would undoubtedly have taken a very different shape had it not been for Chambers's example [...]. The publication of the *Encyclopaedia Britannica* was stimulated by the appearance of the *Encyclopédie*... and almost every subsequent move in the world of encyclopaedia-making is thus directly traceable to the pioneer example of Chambers's work (Collison 104).

The *Cyclopaedia*'s unquestioned influence over subsequent works has the ironic consequence of diluting to some degree the bond among the three particular works in this study. For example, can Chambers be seen to have exerted any more influence over the *Encyclopédie* than over later compilations? In fact, the question of the degree of interrelation among the *Cyclopaedia*, the *Encyclopédie*, and the *Encyclopaedia Britannica* has been the subject of some debate.

While it is well known that the *Encyclopédie* was originally conceived as a translation of the *Cyclopaedia*, critics are divided on how they view the ultimate influence of Chambers's compilation on the French work:

Pas une ligne ne s'est imprimée sur l'*Encyclopédie* sans que ne soit rappelée cette origine. Plagiat boursoufflé de l'ouvrage anglais, ainsi parut à ses détracteurs, notamment au Journaliste de Trévoux, l'*Encyclopédie*. Pour ses hagiographes au contraire, la *Cyclopaedia* n'a qu'un mérite, celui d'avoir mis en branle la grande œuvre encyclopédique (Leca-Tsiomis 184).

Despite its beginnings as inspired and, as a translation, in some way legitimized by the *Cyclopaedia*, the French project expanded far beyond the scope of its predecessor. There is no doubt that the *Encyclopédie* evolved into an entirely different work—arguably unrecognizable—from that of Chambers. In fact, the relationship between the *Encyclopédie* and the *Cyclopaedia* is discussed in some detail in the preface of the former, and the compilers seem eager to emphasize the differences between their work and that of Chambers. On the one hand, they admit to having been inspired by the *Cyclopaedia*, citing it as «notre modele» (1: xxxvj); Yeo notes that the goal of the *Encyclopédie* was “to improve the coverage of the *Cyclopaedia*, to realise the full potential of the method it embodied,” and remarks, “The debt went further than basic content and organisational devices” (Yeo 2001 127). On the other hand, it is noted in the preface of the *Encyclopédie*, «nous annonçons que l'Ouvrage de Chambers n'est point la base unique sur laquelle nous avons élevé; [...] qu'il rentre simplement

dans la classe des Auteurs que nous avons particulièrement consultés» (1: xxxv). In fact, in defending the decision to go above and beyond a translation of the *Cyclopaedia*, it is suggested that Chambers's compilation is itself inspired by French works:

L'Encyclopédie de Chambers dont on a publié à Londres un si grand nombre d'éditions rapides; cette Encyclopédie qu'on vient de traduire tout récemment en Italien, & qui de notre aveu mérite en Angleterre & chez l'étranger les honneurs qu'on lui rend, n'eût peut-être jamais été faite, si avant qu'elle parût en Anglois, nous n'avions eu dans notre Langue des Ouvrages où Chambers a puisé sans mesure & sans choix la plus grande partie des choses dont il a composé son Dictionnaire. Qu'en auroient donc pensé nos François sur une traduction pure & simple? (1: xxxv).

This statement simultaneously validates the original contribution of the *Encyclopédistes* and suggests that despite Chambers being the compiler «le plus connu» (1: xxxiv), the innovation of his *Cyclopaedia* may be rooted in French tradition. Specifically, it has been suggested that D'Alembert is referring to the work of Furetière, the *Dictionnaire Universel*, published in 1690; however there has been some dispute over the extent to which Chambers was inspired by French sources (Yeo 2001 126). Alexander Chalmers, for example, denies these claims of the *Encyclopédistes*, noting, "it cannot be questioned, that [Chambers] availed himself no less of the excellent writers of his native land than those of France" (90). In the above statement, however, the editors of the *Encyclopédie* doubly

claim right of entry for their work into the world of encyclopedism. The comparison between the *Encyclopédie* and the *Cyclopaedia* is further discussed in the preface to the *Encyclopédie*, where it is noted:

Chambers a lû des Livres, mais il n'a guere vû d'artistes; cependant il y a beaucoup de choses qu'on n'apprend que dans les ateliers. D'ailleurs il n'en est pas ici des omissions comme dans un autre Ouvrage. Un article omis dans un Dictionnaire commun le rend seulement imparfait. Dans une Encyclopédie, il rompt l'enchaînement, & nuit à la forme & au fond; & il a fallu tout l'art d'Ephraïm Chambers pour pallier ce défaut (1: xxxv).

This charge of a lack of richness within the pages of the *Cyclopaedia* is echoed in Diderot's entry for "Encyclopédie," in which he notes: «Les articles de Chambers sont assez régulièrement distribués; mais ils sont vuides. Les nôtres sont pleins, mais irréguliers. Si Chambers eût rempli les siens, je ne doute point que son ordonnance n'en eût souffert» (5: 641-642; Blom 154).⁴⁰

It should be remarked, however, that in general the *Encyclopédistes* are not overly critical of Chambers's work; in fact, the *Cyclopaedia* is in some instances the subject of high if somewhat backhanded praise: «Nous convenons avec [Chambers] que le plan & le dessein de son Dictionnaire sont excellens, & que si l'exécution en étoit portée à un certain degré de perfection, il contribueroit plus lui seul aux progrès de la vraie Science, que la moitié des Livres connus» (1:

⁴⁰ Regarding detailed examples of direct translation of the *Cyclopaedia* in the *Encyclopédie*, Leca-Tsiomis notes, «De nos jours, J. Lough a donné les sources chambersiennes d'un certain nombre d'articles de Diderot, établissant les filiations, et montrant qu'un certain nombre d'articles relèvent, *in extenso* ou en partie, de la traduction de la *Cyclopaedia*» (184).

xxxv). The ambivalent character of the comments made about the *Cyclopaedia* in the preface to the *Encyclopédie* is noted by Chalmers, who remarks, “The editors of [the *Encyclopédie*], while they pass high encomiums on Mr. Chambers’s *Cyclopædia*, blend with them censures that are unfounded” (89). While it is impossible to assess the specific extent to which the *Encyclopédistes* were inspired by Chambers, it is true that the influence of the *Cyclopaedia* should not be overlooked, nor overshadowed by the magnificent scale and celebrity of the *Encyclopédie*: “because the *Encyclopédie* has rightly been seen as the great textual symbol of the Enlightenment, there has been a tendency for the pronouncements of its editors on the nature, organisation and function of their work to displace those of Chambers, even though they acknowledged his influence” (Yeo 2001 124).

The question of acknowledgement brings into focus a principal complication in discerning the effect of one encyclopedic work upon another. Arising from the compiler’s position as member of the public whose work is inevitably affected either consciously or otherwise by multiple sources, the question of influence becomes a matter of degree rather than one of absolutes. For example, the *Encyclopédie* draws on the work of several encyclopedias in addition to that of Chambers as well as on the expertise of its own numerous compilers. In this case, therefore, the question of influence must apply not only to the total work itself, but to individual contributions found within it.

Further challenging the linearity of influence is the multiplicity of sources operating on all encyclopedias, including those that act as influencing sources of

other compilations. For example, although Chambers is considered to have contributed to the foundation of modern encyclopedic practices, his own work is informed by his predecessors, with the *Cyclopaedia* itself drawing on a variety of sources:

La *Cyclopaedia ou Universal dictionary of arts and sciences* n'est donc, pas plus que l'*Encyclopédie*, le fruit d'une génération spontanée, mais le produit d'une série de réflexions et de pratiques qui lui sont antérieures, que Chambers hérita, avec lesquelles il composa, retenant, ajoutant, retranchant, réordonnant son matériau, élaborant des solutions neuves, posant de nouvelles questions, et donnant ainsi à son *Dictionnaire universel*, l'originalité et l'individualité qui sont les siennes (Leca-Tsiomis 214).

In addition to the general mention on his title page of “the best Authors, Dictionaries, Journals, Memoirs, Transactions, Ephemerides, &c.,” Chambers recognizes certain works as being “subservient to [his] Purposes” (1: i), including the compilations of “the *French Academists*, the *Jesuits de Trevoux*,” and others—among them Harris, whose influence has been confirmed (Bradshaw, *Chambers* 128; Walsh 38; Yeo 2001 38). Indeed, the influence of the *Journal de Trévoux* is particularly significant, as certain articles of the *Cyclopaedia* have been demonstrated to be nearly literal translations of parts of this work.⁴¹ This indirect connection of the *Trévoux* and the *Encyclopédie* lends an irony to the tension between the two parties and the sympathy of the *Trévoux* for Chambers's work: «le père Berthier, qui vanta les mérites de Chambers et mena campagne

⁴¹ See Leca-Tsiomis for examples.

contre les ‘plagiats’ multiples dont l’*Encyclopédie* s’était rendu coupable, démontrait, par là même, ou sa partialité ou sa méconnaissance des vertus comparées de la *Cyclopaedia* et du *Trévoux*!» (Leca-Tsiomis 208).

Despite Chambers’s disclosure of his dependence on outside sources, the author does argue for the innovative quality of his work, in part by the favourable comparison of the *Cyclopaedia* to existing compilations. Chambers expresses pride at being the sole compiler of the work, comparing the *Cyclopaedia* to those works compiled by many: “The bare Vocabulary of the Academy *della Crusca* was above forty Years in compiling, and the Dictionary of the *French* Academy much longer; and yet the present Work is as much more extensive than either of them in its Nature and Subject, as it falls short of ‘em in number of Years, or of Persons employ’d” (1: i). Thus, in addition to Chambers’s unique status of being a single compiler, he sees the work as making a valuable and individual contribution.

For some authors, the link between the *Encyclopaedia Britannica* and its predecessors is affirmed: Walsh writes that Bell, Macfarquhar, and Smellie “were influenced and inspired by the triumph of the Famous French *Encyclopédie* of Diderot and by the success, even earlier, of the great *Cyclopaedia* of Ephraim Chambers”; this causal relationship is further highlighted in the statement that the *Britannica* “benefit[ed] from the experience of Chambers, and the shortcomings of Diderot’s attempt” (Walsh 45). Harvey Einbinder supports this viewpoint, seeing the *Encyclopédie* as the direct inspiration at least of the enterprise of the *Britannica*; he notes that Bell and Macfarquhar “decided to embark on this

venture because of the extraordinary success and notoriety of the French work” (29). If the *Britannica* is seen as the product of a reaction to the *Encyclopédie*, it also becomes an indirect reaction to the *Cyclopaedia*. However, the *Cyclopaedia* is listed as one of the sources of the *Britannica*; thus, the relationship between these latter texts is twofold, playing out on different planes of directness. In the preface to the *Britannica*, Smellie criticizes both the *Cyclopaedia* and the *Encyclopédie* for their organization of the sciences, yet also lists both these works within his list of sources. The relationship of influences that exists between Chambers and the *Encyclopédistes* is therefore in some way hidden from the perspective of the *Britannica*, as both are predecessors to it. This highlights the multi-dimensional quality of the encyclopedia’s context of influence: not only is it difficult to locate the sources operating upon a given compiler, but a comprehensive inquiry into the matter of influence among given works must also take into account the genealogical relationships at play among the sources of the work in question.

From the perspective of content, some of Smellie’s entries are presented in terms nearly identical to those of Chambers. For instance, Chambers defines translation as “the Act of transferring or removing a Thing from one Place to another” (2: 233); Smellie’s definition is identical except for punctuation: “the act of transferring or removing a thing from one place to another” (3: 902). While admittedly, the similarities in these definitions could stem from both compilers’ emphasis on the etymology of *translation*, the literally identical representations imply a suggestion of influence. Smellie also draws on the work of the

Encyclopédistes, citing them in his entry for “Cyclopaedia,” yet Smellie’s use of the content of the *Encyclopédie* as a source is not altogether apparent. Kafker notes, “there is little evidence that [Smellie] consulted the *Encyclopédie*,” although Smellie did consult sources that are quoted directly in the *Encyclopédie* (Kafker 1994 150). It is further remarked that, “Except for mentioning it in the preface and bibliography, the only direct reference to the work appears in the article ‘Cyclopaedia, or Encyclopaedia’” (Kafker 1994 150). Despite this statement, however, it is later noted that Smellie’s article on taste is copied from Voltaire’s article, “Goût,” published in the *Encyclopédie* in 1757 (Kafker 1994 166). Indeed, an entry for “Voltaire’s essay on taste” is included in Smellie’s list of consulted authors. This influence is supported by Smellie’s entry for “Taste” itself, in which he writes,

To have a taste, supposes something more than merely to perceive, and to discern with accuracy the beauty of any work or object. This beauty must be *felt*, as well as *perceived*; the mind must be touched and affected by it in a lively and sensible manner. This feeling however, in order to constitute true *taste* must not be a vague and confused sensation; but must be attended with a distinct view, a quick and comprehensive discernment of the various qualities, in their several relations and connections, which enter into the composition of the object we contemplate. And in this we see another striking resemblance between the intellectual taste and the sensual one: for as a nice palate perceives immediately the mixture

of different wines, so the man of taste will quickly discern the motley mixture of different styles in the same production; and, let the beauties and defects be ever so closely blended in an object will always be capable of distinguishing the former from the latter (3: 887).

This statement bears more than a strong resemblance to Voltaire's comments in the pages of the *Encyclopédie*:

Il ne suffit pas pour le *goût*, de voir, de connoître la beauté d'un ouvrage; il faut la sentir, en d'être touché. Il ne suffit pas de sentir, d'être touché d'une maniere confuse, il faut démêler les différentes nuances; rien ne doit échapper à la promitude du discernement; & c'est encore une ressemblance de ce *goût* intellectuel, de ce *goût* des Arts, avec le *goût* sensuel: car si le gourmet sent & reconnoît promptement le mélange de deux liqueurs, l'homme de *goût*, le connoisseur, verra d'un coup-d'œil prompt le mélange de deux styles' il verra un défaut à côté d'un agrément; il sera saisi d'enthousiasme à ce vers des Horaces: *Que vouliez-vous qu'il fit contre trois? qu'il mourût*. Il sentira un dégoût involontaire au vers suivant: *Ou qu'un beau desespoir alors le secourût* (7: 761).

Furthermore, in some cases the *Encyclopaedia Britannica* and the *Encyclopédie*, as well as the *Cyclopaedia*, share not only common themes but ways of approaching these themes, as in the case of their treatment of the encyclopedic goal, as discussed later in this thesis. It seems improbable that these

similarities are coincidental; what does seem likely is that they represent a tradition in encyclopedia compilation. Nor is it impossible that other encyclopedias not included in this study would share some of these same approaches. Here again arises the complication of multiple sources confounding the question of influence.

The differences in content that exist between the *Encyclopédie* and the *Encyclopaedia Britannica* are not surprising when the distinctive contexts within which the two works were produced are considered. While the *Encyclopédie* was created by over one hundred total contributors, the *Britannica* was essentially the work of one compiler. The former work was created over decades while the latter was compiled quickly, even considering its relatively small size. It is interesting that despite these differences the two works have been the subject of a common criticism, that of a lack of consistency in the treatment of topics. Of the *Encyclopédie*, Philipp Blom notes:

At times subjects of considerable importance were dealt with within a few lines, while seemingly trivial matters had many columns and pages devoted to them; articles purporting to be about a certain subject suddenly veered off into a different direction never to return, and if Diderot thought a contribution not expressive enough, or if he was taken with the idea, he added his own commentary underneath, often contradicting what the article itself said, or undermining its meaning. If his immense courage,

learning, and easy friendship made the work possible, his eclectic character made it what it is (151).

For its part, the *Britannica* has been accused of being “very uneven, judging by such standards as depth, breadth, accuracy, and originality of coverage, choice of up-to-date and authoritative secondary sources, citation of source references, and acuity and open-mindedness of critical judgments,” and of being inconsistent in its treatment of certain subjects as compared to others (Kafker 1994 155).⁴² This is likely the result of Smellie’s haste in compiling his work, while ironically, it would seem that the *Encyclopédie* suffered from over-correction and over-contribution, to arrive at a similar end.

The influence of previous encyclopedic works on the *Britannica* is made explicit by Smellie’s prefatory remarks. With regard to textual aspects of the work, for example, Smellie scoffs at the alphabetical order adopted in “Chambers, Owen, &c. or even the voluminous French *Encyclopedie*,”⁴³ which the author dismisses in his preface as “folly.” Instead, the *Britannica* is arranged according to “distinct Treatises or Systems,” with “the various Technical Terms” being presented alphabetically, as promised on its title page. In this way, the organization of the work reflects Smellie’s statement that, “It is well if a man be capable of comprehending the principles and relations of the different parts of science, when laid before him in one uninterrupted chain” (1: v). As in the case of Chambers, this comment points to the importance of organization in the

⁴² See Kafker for a discussion of the treatment of specific branches of knowledge in the *Britannica* (1994 155-170).

⁴³ Smellie refers here to the *New and complete dictionary of arts and sciences*, by William Owen and others (Kafker 1994 145).

compilation, and justifies the work more by its method than its matter. Despite this apparent move from the lexicographic style of previous encyclopedias, however, there are similarities in the processes:

the earlier editions of [the *Encyclopaedia Britannica*] recognised the importance of presenting major subjects as coherent wholes, but Smellie and Tytler wrote several such articles by abridging, glossing and synthesising other sources. They did what Chambers and other compilers had done, only at the level of subject rather than terms (Yeo 2001 252).

Smellie makes the claim in his preface “that this new enterprise has an advantage over all previous works of the kind, including ‘even the voluminous French *Encyclopédie*’, in that it devotes long articles to the different sciences, instead of scattering the information about each branch of knowledge in short articles arranged in alphabetical order” (Lough 1970 22). Smellie’s prefatory statements are in keeping with an emphasis on function; his address to the target audience of the *Britannica* thus reflects “the practical attitude of the owners who were men of business with an interest in science, not philosophers seeking to reorganise the intellectual world” (Yeo 2001 179).

Although Smellie makes reference to many sources in his “List of Authors, &c.”—Chambers, Owen, and «Le Grand *Encyclopédie*» among them⁴⁴—his specific mention and criticism in the preface of these three works, and these works only, points to a self-evident relationship among them. In fact,

⁴⁴ Kafker notes that the *Encyclopédie* is mentioned in Smellie’s “bibliography” (1994 150), however, the only mention found was specific to Voltaire’s essay on taste.

this practice of distinguishing one's work from that of one's predecessors is common within the prefatory material of encyclopedias in this study, and is used by the compilers as a means of legitimizing their work. Ironically, then, an assertion of separation from predecessors serves precisely to inscribe a work into the encyclopedic tradition of the eighteenth century.

Authorship

Having considered the relationships of influence within the encyclopedic context, we now turn our attention to a contributing factor in this complexity: the role of the compiler himself within the encyclopedia, and specifically, his personal stake as author.

In the case of the *Cyclopaedia*, Chambers claims authorship for his work, emphasizing the burden of the task for one sole person: "'Tis not without some Concern that I put this Work in the Reader's Hands; a Work so disproportionate to a single Person's Experience, and which might have employ'd an Academy" (1: i). Chambers does however acknowledge his reliance on outside sources, noting:

Recourse has been had to the Originals themselves on the several Arts; and, not to mention what small Matters could be furnished *de proprio penu*, the Reader will here have Extracts and Accounts from a great Number of Authors of all Kinds, either overlook'd by former Dictionarists, or not then extant; and a Multitude of

Improvements in the several Parts, especially of Natural Knowledge, made in these last Years (1: i).

Chambers fully discloses his dependence on other sources for the content of his work but emphasizes that in the area of organization, which he sees as his main contribution, the compilation of the work was conducted independently:

Such are the Sources from whence the Materials of the present Work were derived; which, it must be allowed, were rich enough not only to afford Plenty, but even Profusion: So that the chief Difficulty lay in the Form; in the Order, and Economy of the Work: To dispose such a variety of Materials in such manner, as not to make a confused Heap of incongruous Parts, but one consistent Whole.—And here it must be confess'd there was no Assistance to be had; but I was forced to stand wholly on my own Bottom (1: i).

Overall then, Chambers makes explicit the nature of his contribution, defining it as consisting of providing the reader with a coherent and easily consultable body of work: “Former Lexicographers have not attempted any thing like Structure in their Works; nor seem to have been aware that a Dictionary was in some measure capable of the Advantages of a continued Discourse. Accordingly, we see nothing like a Whole in what they have done” (1: i). Chambers’s approach to his own contribution is further outlined by Yeo, who writes:

Chambers freely admitted that he depended on other books. As a compiler he relied on them, acknowledging their contents as worth including, yet arguing that his dictionary performed the important function of making knowledge accessible to the public as well as to scholars: it was a book that conveyed knowledge more economically than other books, summarising it more comprehensively than other dictionaries. He made no claim to originality because his aim was to condense knowledge, making it accessible to readers not familiar with scholarly works and transactions of scientific societies. The *Cyclopaedia* thus attenuated the burden of too many books (2001 102-103).⁴⁵

Despite Yeo's remark that Chambers "made no claim to originality," it would appear that the compiler views his contribution as crucial and distinctive enough to justify his own authorship of the *Cyclopaedia*, albeit implicitly. He further suggests the creative nature of his contribution and that of other compilers in qualifying lexicography as an art rather than a science: "Lexicography, being of the Nature of an Art, deviates of course from what pure Reason would prescribe" (1: xxiii). Thus the process of compilation is framed by Chambers as creative, authorial, and exclusive. His insistence on the uniqueness of his work, despite his acknowledgement of outside sources, lends credence to the notion of authorship in the context of the encyclopedia as being primarily organizational and selective in nature.

⁴⁵ For Chambers, "bibliophila was a great sin" (Yeo 2001 120).

The *Encyclopédie* is identified on the title page of its first and subsequent volumes as having been «mis en ordre et publié» by Diderot and D'Alembert, who are also implicitly responsible for the prefatory material, which is signed, «des Editeurs».⁴⁶ These characterizations eschew any deliberate mention of direct authorship. However, from their emphasis on the unique contribution of the *Encyclopédie*, it can be assumed that the editors consider the work to be creative, and may therefore see themselves in an authorial role, despite the many authors that the project involved. In the preface to the *Encyclopédie*, the consequences for the editor of engaging «Savans» and «Artistes» as writers is addressed:

nous avons eu plus de méthode, de certitude, d'étendue, & de détails qu'il ne peut y en avoir dans la plûpart des Lexicographes. Il est vrai que ce plan a réduit le mérite d'Editeur à peu de chose; mais il a beaucoup ajoûté à la perfection de l'Ouvrage; & nous penserons toujournous nous être acquis assez de gloire, si le Public est satisfait. En un mot, chacun de nos Collegues a fait un Dictionnaire de la Partie dont il s'est chargé, & nous avons réuni tous ces Dictionnaires ensemble (1: xxxvj).⁴⁷

Herein lies a twist to the question of authorship and the role of the compiler: as a compilation too broad in scope and too detailed to have been written by one person, can the *Encyclopédie* be considered a cohesive whole?

⁴⁶ More specifically, the preface is written by D'Alembert, on behalf of the editors, though it contains a large excerpt written by Diderot.

⁴⁷ It is of interest that the supposedly reduced role of the editor mentioned here appears to be contradictory not only to Chambers's conception of the encyclopedia author or compiler, but also to the importance placed on organization by D'Alembert himself in the preface (see Yeo 2001 127).

In such a compilation, each entry within the *Encyclopédie* cannot be considered as perfectly expressive of the editors' own views.⁴⁸ Yet in this sense, the position of Diderot and D'Alembert as editors is no different from that of Chambers, or any other compiler making use of outside sources, though the contributors to the *Encyclopédie* often wrote their articles specifically for inclusion in the project, and therefore play a more deliberate role. In this way, the contributors share Diderot's implicit claim to authorship, which in the context of the *Encyclopédie* is a bi-fold concept. On the level of the text as a whole, the authorial status—the same as that enjoyed by Chambers, and other compilers—belongs to the editors. On the level of individual entries, in terms of content and organization, the authorship belongs, at least in part, to the individual contributors of the project, the result of their active participation in it. This is important from the perspective of influence among compilations: in order to accurately assess the genealogical relationships that exist among encyclopedic texts, it is necessary to take account of the various authorial situations at play, even within one compilation. This situation mirrors the position of the compiler in general with respect to the public: even within one encyclopedia, there can be an author (the writer of a given entry) and a receiving public (other *Encyclopédistes*, such as the editors)—roles that are not so much shifting as plural, operating from different perspectives.

In the *Encyclopaedia Britannica*, the compiler's authorial role is obscured by different means. On the title page, the *Britannica* is listed as being the work of

⁴⁸ In Beauzée's entry "Langue," for example, the author describes language as a creation of God, a position that must have "irritated" Diderot (Kafker 1988 27).

“a Society of Gentlemen in Scotland,” and in the preface, this group is referred to as “the compilers” (1: v), while there is also separate mention made of “The Editors” (1: vi). However, it has been suggested that the society mentioned was likely comprised of Smellie alone: “Since societies were the order of the day, the ‘Society of Gentlemen’ would appear to have been no other than Smellie himself as principal editor of the first edition of the *Britannica*, along with Macfarquhar as printer and Bell as engraver” (Kruse 30).⁴⁹ This viewpoint supports commentary by Yeo:

Although Harris and Chambers compiled their works single-handedly, it soon became common for encyclopaedias to be described as both authored and published, like some journals, ‘By a Society of Gentlemen’. [...] the *Encyclopédie* carried a version of this name—Société de Gens de Lettres—on its title page. This suggested some kind of collective responsibility, even if the work was in fact compiled by one or two individuals (2001 52).

Walsh takes a different view of the nature of this society, as referring specifically to “Andrew Bell, (1726-1809), an engraver, Colin Macfarquhar (c. 1745-1793), a printer, and the first editor of the work, William Smellie (1740-1795), a scholar who undertook the responsibility of editorship at the remarkably early age of twenty-eight” (45). However, the title page of the *Britannica* seems to present these names as separate from the aforementioned society; the Society of

⁴⁹ Kruse does allow for another possibility as to the membership of this group: “it was Smellie’s habit to seek the encouragement and approval of his friends in the trade, for he was a man whose intellectual abilities attracted scholars of the day. He had established, along with several other young men of Edinburgh who later became celebrated in their respective walks of life, a weekly club which they termed the Newtonian Society” (29).

Gentlemen is privileged as having authored the work, while the specific roles of Bell and Macfarquhar are made explicit on the title page, implicitly separating them from the group: “Printed for A. Bell and C. Macfarquhar; And sold by Colin Macfarquhar, at his Printing-Office, Nicolson-street.”⁵⁰ Despite this apparent separation on the title page, it is certainly true that Bell and Macfarquhar played a critical role in the genesis of the work, including, as noted above, the original conception of the project. Generally, the first edition of the *Britannica* is considered to be a collaboration of the three men (Collison 138).

Following the preface of the first edition of the *Britannica*, there is a “List of the principal authors made use of in this compilation” (1: vi). Though the list is not entirely specific—there are such general references as “Essays physical and literary,” and “Gazetteers, Pamphlets, Magazines, and other periodical publications; besides many books mentioned in the work itself” (1: vii-viii)—its inclusion marks the specific disclosure of at least some sources. Of course, there is no list of the members of the Society of Gentlemen included.

Smellie’s role is largely obscured by the crediting of his work, possibly by his own hand, to a society, likely because “the projectors of the work agreed that such a phrase seemed more imposing on the title-page than the mere names of the owners and printers of the product” (Kruse 29). The obscurity of this alleged society, along with the active participation of the engraver and the printer of the work, raises important questions about the notion of authorship in the *Encyclopaedia Britannica*. The project was envisioned, and commissioned, by Bell and Macfarquhar, and then, like all the encyclopedias in this study, compiled

⁵⁰ Smellie’s name does not appear on the title page.

with the use of outside sources.⁵¹ Furthermore, Smellie's open claims of cutting and pasting call into question his creative dedication to the project.⁵² Thus, Smellie's theoretical claim to the work is difficult to ascertain. Because of Diderot's more active, and lengthy, involvement in the *Encyclopédie*, and Chambers's more independent participation in the *Cyclopaedia*, these compilers seem entitled to a greater claim of ownership. Yet as observed, the organization of content remains an essential quality of an encyclopaedia; therefore, to the extent that the method of presenting information in the *Britannica* was Smellie's own, his contribution should be acknowledged.

To summarize, in the case of Chambers, the question of the role of the compiler centres around his consultation and inclusion of various outside sources within his encyclopedia, though he is credited with being the sole author; in the *Encyclopédie*, it rests on the truly collaborative nature of the work, the task of the chief editor Diderot, as well as the relationship of this work to its predecessors; in the *Britannica*, due to the fact that the individual contribution of the compiler is not only hidden, but denied, the role of the compiler is highly ambiguous.

In the analysis of influence among encyclopedias, it is important to recognize various possible authorial circumstances. A consideration of the three distinct situations at play in the *Cyclopaedia*, the *Encyclopédie*, and the *Britannica*, illustrates the complexities of this issue. Furthermore, the emphasis in the prefatory discourse of these texts on the unique perspective that each offers as compared to preceding encyclopedias not only underscores selection and

⁵¹ The question of the original conception of the project applies as well to the *Encyclopédie*, initially conceived by Sellius, who would ultimately play no role in the final product.

⁵² See Chapter 3.

organization as key features of the work, but also highlights the fact that some compilers in the eighteenth century deliberately promoted these criteria as shaping the essence of their contribution.

In the absence of more specific details about the authorship of the works, entries in the *Cyclopaedia* and the *Britannica* where there are no outside sources given are considered to be the work of Chambers and Smellie respectively, and certainly to reflect the beliefs of these compilers. Although the *Britannica* is supposedly the work of a society, there is ample evidence to suggest that Smellie is the sole, or at least the primary, compiler. In the case of the *Encyclopédie*, the articles are assumed to be the original products of their individual writers. These entries are considered as discrete works, which can nevertheless be taken to reflect the values promoted by the compilation in general. In all cases, evidence to support the fact that an entry has been translated or copied from another work must be considered.

* * *

The cyclical structure of the encyclopedia is shaped and self-propagated in part by the patterns of influence operating among compilations and particularly by the hybrid role of the compiler as both sender and receiver of public discourse and, more specifically, the multiplicity of acknowledged and unacknowledged sources operating on a given encyclopedia. Understanding these patterns calls for

a unique perspective on originality and the culture of borrowed material within this context:

Où commencer donc, et où interrompre cette filiation et les références qu'elle entraîne? Supposer l'aveu des sources dictionnariales, c'est, en fait, résoudre la quadrature du cercle. Et, du jésuite Berthier dans les *Mémoires de Trévoux* à de plus récents critiques, peu se sont avisés de se poser sérieusement cette question; on a préféré souvent s'enfermer dans des schémas 'littéraires', moralisateurs et inopérants, fondés sur la propriété intellectuelle des articles, faute de tenter de comprendre, comment, *dans la pratique* des dictionnaristes, les choses avaient bien pu se passer (Leca-Tsiomis 206).

Examining the chain of influence at play among the three encyclopedias in this study brings to light the complexity of identifying genealogical relationships among encyclopedias in general and reinforces through example the recursive structure of the encyclopedic genre.

Chapter 5. *Les Belles infidèles*: Norms, Translation, and Compilation in Enlightenment France and Britain

As we saw in the previous chapter, the practice of drawing upon multiple sources is an issue that complicates the matter of influence in encyclopedias and challenges the possibility of identifying one compilation as the inspiration—or the source text, in the case of translation—of another. In fact, the very question of whether an encyclopedia can be considered a translation at all is highly complex, as the encyclopedic process necessarily requires the consultation, digestion, and redaction of outside sources, some of which are likely to be in a language other than that of the encyclopedia in question. Indeed, any translation poses some difficulty with respect to its identification as such, as a line must be drawn between inspiration and source text; this is to say nothing of writing that is deliberately obscure in its communication of sources, such as works of pseudotranslation, a process involving the misrepresentation of an original text as a translation, or a translated text as an original (Robinson 2001 183). In the case of the encyclopedia, this obscurity of source is reinforced, if often unintentional.

In translation, the negotiation of distributing source knowledge and information to the target public is contentious, as privileging either source or target text orientation necessarily requires sacrifice from the opposite perspective. The decisions made in individual instances of translation on this and other dimensions are governed by norms.

The notion of norms is first and foremost a social concept: “Sociologists and social psychologists have long regarded norms as the translation of general values or ideas shared by a community” (Toury 2004 206). However, since Gideon Toury introduced the concept of norms as applied to translation in *In Search of a Theory of Translation* in 1980, it has gained specific importance within the field. Specifically, norm theory evolved within translation studies from late Russian Formalism, serving as a basis for Polysystem theory, which in turn directly influenced Toury’s research on the theory of norms.

Despite certain common features, such as an emphasis on linguistics, and a goal of objectivity and consistency (Komissarov 547), Russian Formalism can be seen to encompass various approaches. Typically, this school of thought has been associated “with a-historicity and static Structuralism” (Even-Zohar 1990 1). However, theorists such as Jurij Tynjanov and Roman Jakobson, writing in the early 20th century, had a significant influence on the culturally-centred approaches that followed, for example, Polysystem theory: “anybody familiar with the second and most decisively advanced stage of its scientific activity in the 1920s can no longer accept the current stereotypes about Russian Formalism” (Even-Zohar 1990 1).

Theorists associated with this stage of Russian Formalism recognized the importance of the socio-cultural environment surrounding literary production:⁵³

⁵³ Even-Zohar remarks of Russian Formalism, “it was [...] never confined to the field of literature, whatever its premises may have been. It now seems to me, after some twenty years of work in the

“The organization of a closed literary order and the examination of the evolution within it sometimes collides with the neighboring cultural, behavioral, and social orders in the broad sense. Thus such an effort is doomed to incompleteness” (Tynjanov 66). This statement therefore takes into account in the context of literary production the same paradox of universality that applies in encyclopedia compilation or translation. The aforementioned approach situates literature within a system, itself historical in nature, and interrelated with other systems, a concept developed by Tynjanov in order to take account of the various extratextual factors at play within literary production: “Since a system is not an equal interaction of all elements but places a group of elements in the foreground—the ‘dominant’—and thus involves the deformation of the remaining elements, a work enters into literature and takes on its own literary function through this dominant” (Tynjanov 72).

It is from this conception of interconnected systems of literary texts, inseparable from their socio-cultural and historical contexts of production, that Itamar Even-Zohar developed the Polysystem approach. Though Edwin Gentzler describes him as “not specifically a translation theorist, but a cultural theorist” (114), Even-Zohar’s work represents a critical phase in the evolution of translation theory as a whole. His Polysystem theory,⁵⁴ introduced in the 1970s, marks one of the first approaches to the study of translation that takes account of

theory, that much the same process has taken place with my own work, and that of other colleagues” (1990 2). This is highlighted by Tynjanov himself, who notes that the term, “history of literature” relates to “the material history of belles lettres, the history of verbal art, and the history of writing in general” (66).

⁵⁴ According to Gentzler, Even-Zohar’s concept of a polysystem “is the same as Tynjanov’s concept of the system, including the literary, semi-literary, and extra-literary structures,” and is meant to encompass “all of the literary systems, both major and minor, existing in a given culture” (115).

social and cultural factors, and goes beyond a one dimensional source-to-target text comparison.

Even-Zohar terms the work of Russian Formalists such as Tynjanov “Dynamic Functionalism” (1990 2), and expands this approach to literature to include translation, asking whether there exists “the same sort of cultural and verbal network of relations within what seems to be an arbitrary group of translated texts as the one we willingly hypothesize for original literature” (2004 199).

Even-Zohar’s theory is primarily concerned with how positions within the polysystem come to be occupied by given sub-elements, and especially with how changes of position come about. As with other systems, the position of translated texts within the polysystem is variable. Translated literature can occupy either a central or a peripheral position, and can play either a primary (innovative) or secondary (conservative) role, “[depending] on the specific constellation of the polysystem under study” (Even-Zohar 2004 200). When it occupies a central position, it plays a key innovative role in the importation of new literature, and new techniques.⁵⁵ When it occupies a peripheral position, translation practices mirror dominant literary conventions, and in so doing, serve to reinforce these, thereby playing a conservative role (Even-Zohar 2004 200-202).⁵⁶ As Even-Zohar notes, “a highly interesting paradox manifests itself here: translation, by which new ideas, items, characteristics can be introduced into a literature, becomes a

⁵⁵ See Even-Zohar (2004) for the explanation of three principal conditions that produce this effect.

⁵⁶ Though Even-Zohar maintains that translated texts may occupy either a central or a peripheral position, and points to the need for more research, he does indicate that, “work carried out in this field by various other scholars, as well as my own research, indicates that the ‘normal’ position assumed by translated literature tends to be the peripheral one” (2004 203).

means to preserve traditional taste” (2004 202). The role that translation plays—either innovative or conservative—depends on its position within the polysystem. This notion of the function of translated material as related to its socio-cultural and historical context is taken up by Toury in his theorization of norms as applied to translation.

Toury developed his descriptive approach to translation, initially presented in 1980 in *In Search of a Theory of Translation*, based on work that he did with Even-Zohar during the 1970s; it is therefore not surprising that Toury was heavily influenced by Polysystem theory. Like Even-Zohar, Toury recognizes the importance of contextual factors surrounding translation, and the interrelationships of systems within the literary polysystem: “Obviously, no theory which takes no heed of the entire network of factors which have (or even may have) a role to play in its domain will be in any real position to enable good and valid predictions” (Toury 1980 66).

Toury’s notion of norms as related to translation also derives from the viewpoint of translation as a series of decision-making processes (Hermans 1999 75). Translation as decision is discussed by Jiří Levý in the following terms:

From the point of view of the working situation of the translator at any moment of his work (that is from the pragmatic point of view), translating is a decision process: a series of a certain number of consecutive situations—moves, as in a game—situations imposing on the translator the necessity of choosing among a certain (and very often exactly definable) number of alternatives (1171).

While the concept of norms as applied to translation submits to the general idea that this statement expresses, it offers a more context-centred perspective, and in so doing, calls into question how “exactly definable” a translator’s set of choices actually is.

According to Theo Hermans, “norms are psychological and social entities” (1996 26). Therefore, recognizing that translation is a “socio-cultural” process (Hermans 1996 26; Toury 1995 54), it stands to reason that, like other socio-cultural behaviours, it is subject to norms. Toury further defines norms in the following way:

In terms of their potency, socio-cultural constraints have been described along a scale anchored between two extremes: general, relatively absolute *rules* on the one hand, and pure *idiosyncrasies* on the other. Between these two poles lies a vast middle-ground occupied by intersubjective factors commonly designated *norms*. The norms themselves form a graded continuum along the scale: some are stronger, and hence more rule-like, others are weaker, and hence almost idiosyncratic. The borderlines between the various types of constraints are thus diffuse (1995 54).⁵⁷

Hermans adopts a slightly different distinction, with conventions at one end of the spectrum, then norms, followed by rules, which he defines as “strong norm[s], which in many cases will have become institutionalized,” and finally decrees, which apply “when the pressure exerted by a rule becomes the *only* reason for

⁵⁷ See Toury (2004 216) for a model of the graphic representation of the distribution of norms within a given context.

behaving in one way rather than another” (1996 32). Like Toury, Hermans sees these distinctions as variable. Not only are the barriers between norms and their neighbours diffuse at any given moment, they are also variable over time and, of course, across cultures.

In terms of their application, norms are not necessarily followed consciously: “In practice, following a given set of norms may be a matter of disposition, of acquired habit, indeed of ‘habitus’ in Bourdieu’s sense of a ‘durable, transposable disposition’” (Hermans 1996 34). Furthermore, norms do not necessarily reflect the viewpoint of all members of a given socio-cultural context: “The dominant norms of a community are usually those of the dominant sections of the community. They are also the sections which determine the content of the norms” (Hermans 1996 36). In recognizing these relations of dominance within a given context, we can see how the study of norms can be particularly useful when considering “the place of translation in relation to power and ideology” (Hermans 1996 26) and more broadly, how writing in any form—particularly if there is an implicit expectation of objectivity, as in the case of the encyclopedia—may conform to and thereby reinforce dominant norms. This is an illustration of how the public and the encyclopedia buttress each other through their reciprocal and fluctuating definition, via the channel of knowledge.

As a point of contact between two socio-cultural contexts, the translator finds himself subjected to two sets of norms. Toury uses the term, “initial norm” to refer to “the basic choice which can be made between requirements of the two different sources” (Toury 1995 56), which will result in a translation erring more

on the side of either adequacy⁵⁸ (source-text oriented) or acceptability (target-text oriented). This norm does not imply any conscious a priori choice on the part of the translator; rather, the initial norm refers to the general tendency of the translator to veer toward the source or target text: “Its initiality derives from its superordinance over particular norms which pertain to lower, and therefore more specific levels. The kind of priority postulated here is basically *logical*, and need not coincide with any ‘real’, i.e., *chronological* order of application” (Toury 1995 57). Furthermore, the initial norm should be understood as a theoretical concept; in practice, translation will never subscribe wholly to one extreme over another: “actual translation decisions [...] will necessarily involve some ad hoc combination of, or compromise between the two extremes implied by the initial norm” (Toury 1995 57).

Toury identifies two further sets of norms at play in translation activity: preliminary norms and operational norms. Preliminary norms refer to those decisions made around the translation process, for example, which texts and types of texts are selected for translation (translation policy), and what degree of separation between a source text and a target text is permissible, for example, whether indirect translation is acceptable (directness of translation). Operational norms relate to the act of translating itself, for example, how elements within the text are organized (matricial norms), and which textual-linguistic elements are selected (textual-linguistic norms) (Hermans 1999 75-76; Toury 2004 209-210).

Andrew Chesterman proposes an alternate division of translational norms, his two main categories being professional norms and expectancy norms.

⁵⁸ Adopted from Even-Zohar (Toury 1995 56).

Chesterman further subdivides professional norms into the accountability norm, which relates to the translator's "loyalty" to "the original author, the commissioner, and the prospective readership"; the communication norm, which dictates that a translator should seek to "optimize communication"; and the relation norm, by which "an appropriate relation [should be] established and maintained between target text and source text" (Chesterman 8-9). Expectancy norms arise from the reader, and relate to how readers expect to view a work of translation.

The operation of norms in translation has also left its mark on a fundamental concept in translation theory, that of equivalence. According to Toury, "it is norms that determine the (type and extent of) equivalence manifested by actual translation" (1995 61). Because of the plurality of norms, it is therefore no longer feasible to conceive of the notion of equivalence as a universal ideal. Toury thus proposes a conception of equivalence as "functional-relational": "What this approach entails is a clear wish to retain the notion of equivalence, which various contemporary approaches [...] have tried to do without, while introducing one essential change into it: from an ahistorical, largely prescriptive concept to a historical one" (Toury 1995 61). In other words, equivalence is taken to be a subjective concept, dependent on the context in question.

The explicit recognition of equivalence as context bound and therefore fluid is a valuable contribution of the study of norms to the field of translation. In considering the parallels between translation and compilation, it also reinforces how, in the context of the encyclopedia, the process of trafficking knowledge as a

method of reinforcing dominant or dissenting viewpoints is as important as the end goal of the ultimate transfer of information.

Translational Norms in 17th- and 18th-Century France and Britain

Translation in France and Britain in the seventeenth and eighteenth centuries was in a state of transition from the perspective of translational norms. Notably, the discussion of the time revolved around striking a balance between faithfulness to the source text and accessibility to the target audience, orientations that were seen as diametrically opposed.

In France, the seventeenth and eighteenth centuries marked a turning point in the deference that had previously been paid to classical writing and authors. The quarrel of the Ancients and Moderns of the seventeenth century pitted well-established ideals based on classical writing against new and innovative writing practices. The Ancients saw the methods of classical authors as time-honoured and incontestable, while the Moderns appreciated the “inventiveness” of new texts, and the ability of modern authors “to revitalize canonical literary genres and to imagine new ones” (DeJean 53). By the eighteenth century, tolerance for non-classical languages had gained popularity:

Au XVIII^e siècle, on l’a rappelé à loisir, la position dominante du latin est combattue dans des milieux pédagogiques comme à l’Académie. Corrélativement, celle-ci fait valoir le statut et les propriétés intrinsèques du français. Il s’agit bien d’un tournant

culturel, qui modifiera en plusieurs sens la description grammaticale (D'Hulst 86).

The opposition of old and new languages is embedded in the history of *Les belles infidèles*. The term was originally coined by writer Gilles Ménage in the seventeenth century in response to the translation perspective popularized by the work of Nicolas Perrot D'Ablancourt. D'Ablancourt adopted a free approach to his translation of classical texts, making them more accessible to the reading public at the expense of literal adherence to the originals. The term *Les belles infidèles* takes into account the paradox of translation as problematized in contemporary discourse: if a translation reads well, it is unfaithful; by extension, if it remains true to the source text it is compromised in readability.

From the perspective of universality, the term *Les belles infidèles* reinforces the paradox arising from a compiler or translator's stance of implied objectivity. There is an opposition established between universality of scope and audience: even within a given realm, maximizing the accessibility to the greatest number of readers requires sacrificing the original; on the other hand, there is an implication that remaining close to the source text will alienate potential readers. Therefore, in the context of the dichotomy implied by *Les belles infidèles*, a choice must be made between universality of scope or audience, as total universality is impossible. In the encyclopedic context, this means limiting the amount and specialization of information in the name of mass appeal and accessibility. Lieven D'Hulst further highlights the new cooperation and communication among fields of study: «Ce qu'en l'occurrence le XVIII^e siècle

donne à voir est une réflexion ‘interdisciplinaire’» (86). This quest for new knowledge combinations further supports the project of universality.

This opposition of source and target text orientation was also addressed in the context of British tradition, notably by John Dryden in his preface to Ovid’s *Epistles*, published in 1680, and by Alexander Tytler, in his *Essay on the Principles of Translation*, published in 1791.

In his preface to *Epistles*, Dryden outlined a tripartite approach to translation:

All translation I suppose may be reduced to these three heads.

First, that of Metaphrase, or turning an Author word by word, and Line by Line, from one Language into another. Thus, or near this manner, was Horace his *Art of Poetry* translated by Ben. Jonson. The second way is that of Paraphrase, or Translation with Latitude, where the Author is kept in view by the Translator, so as never to be lost, but his words are not so strictly follow’d as his sense, and that too is admitted to be amplyfied, but not alter’d. Such is Mr. Wallers translation of Virgils Fourth *Æneid*. The Third way is that of Imitation, where the Translator (if now he has not lost that Name) assumes the liberty not only to vary from the words and sence, but to forsake them both as he sees occasion: and taking only some general hints from the Original, to run division on the ground-work, as he pleases. Such is Mr. Cowleys practice in

turning two Odes of Pindar, and one of Horace into English
(*Preface*).

While the distinctions between metaphrase, paraphrase, and imitation were popularized by Dryden, he is not credited with having coined these terms:

His three ‘new’ terms for translation, metaphrase, paraphrase, and imitation, for word-for-word, sense-for-sense, and ‘free’ translation, were far from new; first theorized for translation in ancient Alexandria (by Philo) and Rome (by Quintilian), they were rediscovered in the Renaissance and used repeatedly by authors from Roger Ascham in 1570 to Pierre-Daniel Huet in 1661 (Robinson, *Dryden* 172).

While it can be argued that Dryden’s popularization of the three types of translation presented the option of a middle ground in metaphrase, this desired balance was more thoroughly developed by Tytler. Of Tytler’s *Essay on the Principles of Translation*, Douglas Robinson remarks that it is “bland, inoffensive, unoriginal, but extremely accessible, and is often cited as the last expression of the Enlightenment spirit in the theory of translation” (Tytler 209). In this text, Tytler acknowledges the apparently contradictory requirements operating on the translator:

If the genius and character of all languages were the same, it would be an easy task to translate from one into another; nor would any thing more be requisite on the part of the translator, than fidelity and attention. But as the genius and character of languages is

confessedly very different, it has hence become a common opinion, that it is the duty of a translator to attend only to the sense and spirit of his original, to make himself perfectly master of his author's ideas, and to communicate them in those expressions which he judges to be best suited to convey them. It has, on the other hand, been maintained, that, in order to constitute a perfect translation, it is not only requisite that the ideas and sentiments of the original author should be conveyed, but likewise his style and manner of writing, which, it is supposed, cannot be done without a strict attention to the arrangement of his sentences, and even to their order and construction. According to the former idea of translation, it is allowable to improve and to embellish; according to the latter, it is necessary to preserve even blemishes and defects; and to these must likewise be superadded the harshness that must attend every copy in which the artist scrupulously studies to imitate the minutest lines or traces of his original (12-14).

The impossibility that results from these constraints means that, as implied by the expression *Les belles infidèles*, a choice must be made in favour of one or the other pole. Tytler modifies this stance in his suggestion of a middle ground:

As these two opinions form opposite extremes, it is not improbable that the point of perfection should be found between the two. I would therefore describe a good translation to be, *That, in which the merit of the original work is so completely transfused into*

another language, as to be as distinctly apprehended, and as strongly felt, by a native of the country to which that language belongs, as it is by those who speak the language of the original work (14).

From this presupposition, Tytler elaborates on the “laws of translation” that result: “That the Translation should give a complete transcript of the ideas of the original work”; “That the style and manner of writing should be of the same character with that of the original”; and “That the Translation should have all the ease of original composition” (15). Despite Tytler’s discussion of an intermediate position between source and target orientation, his rules do privilege the original as the standard by which translations should be carried out. This is supported by comments throughout his essay. For example, he notes of D’Ablancourt, “His versions are admirable, so long as we forbear to compare them with the originals: they are models of ease, of elegance, and perspicuity; but he has considered these qualities as the primary requisites of translation, and both the sense and manner of his originals are sacrificed, without scruple to their attainment” (216).

Overall, the translational norms of seventeenth- and eighteenth-century France and Britain betray an attempt at capturing universality. The trade-off of source and target oriented translation is a way of reconciling the impossibility of relaying all information to all readers: universality is impossible, as these two poles are in conflict. From this perspective, translation participates in the broad social norms that dictate an impulse of universal capture that is also a fundamental characteristic of the encyclopedic genre.

Figures of the Translator and the Compiler

Like the compiler, the translator's position as stuck between source material and target audience dictates the impossibility of his achieving the goal of universality. Both agents are precariously positioned with respect to the general public, and their roles oscillate as they shift from receivers to givers of information-turned knowledge. Because of this common position, an examination of the well-developed ideas about the figure of the translator in terms of his position of mediation and the expectation of invisibility to which he is subjected, sheds light on the impossible universal ideal additionally in the encyclopedic genre.

The complexity of the role of the compiler stems primarily from his position of mediation with respect to source and target text or, in other terms, as receiver and sender of information. The compiler, like the translator, is in the first place the reader of the original text, the target of this communication, and then, switching roles and possibly languages, he becomes the writer, or source, of the compiled text. The figure of the translator-cum-author is illustrated in the seventeenth century "Essay on Translated Verse"⁵⁹; commenting on the poem, Susan Bassnett notes,

⁵⁹ Dillon Wentworth, Earl of Roscommon, "Essay on Translated Verse" (Bassnett 10-11). For a more complete version of the poem, see Lefevere (43-45).

*'Tis true, Composing is the nobler Part,
But good Translation is no Easie Art,
For the materials have long since been found,
Yet both your Fancy and your Hands are bound,
And by improving what was writ before,
Invention labours less, but Judgement more.
Each poet with a different talent writes,*

The translator is to choose carefully, to select an author with whom there is a sense of empathy, what he terms, 'a sympathetick bond'.

Through this relationship and by means of a close reading of the source author's work, a symbiosis takes place and the translator and author of the source text are fused in a mystical orgasmic relationship where they cease to exist as separate entities and become one. The last line says it all: the translator ceases to be an interpreter and becomes the source writer for the target reader (11).

This analysis underlines the hybrid quality of the translator's role, which further requires that he assume responsibility at multiple levels,⁶⁰ and can extend to the position of the compiler. Francine Kaufmann presents an interesting interpretation of the plural function of translation, arguing that the double agency of the translator places him in an uncomfortable situation:

Selon [Simeoni], cette soumission à l'auteur, puis au client, est devenue une seconde nature, renforcée par des siècles d'histoire, conduisant le traducteur moderne à accepter tout naturellement d'effacer sa créativité propre afin de mieux prouver sa loyauté, sa

*One praises, one instructs, another bites.
Horace did ne'er aspire to Epick Bays,
Nor lofty Maro stoop to Lyrick Lays.
Examine how your Humour is inclin'd,
And which the Ruling Passion of your Mind;
Then seek a Poet who your ways does bend,
And choose an Author as you choose a Friend;
United by this sympathetick Bond,
You grow familiar, intimate and fond.
Your Thoughts, your Words, your Stiles, your Souls agree,
No longer his Interpreter, but He.*

⁶⁰ This status of the translator has long been recognized, as suggested by historical representations characterizing this double role: «l'hiéroglyphe égyptien signifiant 'interprétation' est composé d'un double cartouche car il montre l'interprète, auditeur/locuteur, recevant le message en langue étrangère et le restituant ensuite dans une autre langue» (Kaufmann 189-190).

fidélité, son respect des contraintes imposées par le client, le public, l'auteur, le texte, le langage, la culture ou la micro-culture dans laquelle il opère.

Or, sous cette revendication assumée d'une allégeance valorisée par les divers codes déontologiques de la profession, on peut identifier la crainte d'être taxé de traître, selon l'incontournable adage italien «traduttore traditore» (Kaufmann 187).⁶¹

The raw material that the translator presents is not original, in the sense that it is not originally invented by him; however, without the figure of the translator, it cannot reach its ultimate public—in this sense, the material can be seen as the translator's to give, or to withhold. Like the translator, the encyclopedia compiler occupies a mediating position between source and the reading public; the compiler's task consists of taking information that is too specialized—or simply too copious—for public consumption, and translating it into digestible form. Thus the position of gatekeeper is familiar to both figures, who stand between source material and target audience. Both are essential to the transfer of information that takes place, but they also constitute an unavoidable interruption in the relationship between source and target.⁶²

⁶¹ The inclusion of this adage in the articles on translation in our study attests to its long-standing significance in the characterization of the translator.

⁶² The translator's role as a conspicuously active participant in the text is further emphasized in Meschonnic's *Poétique du traduire* by the claim that translation is a form of speech act (18). This claim underscores the action of the speaker—the translator, in this case—and what can be achieved by language when the speaker is directly implied. Encyclopedia entries can also be viewed in the context of speech acts, in the sense that, like the translator, the compiler serves as medium, therefore the speaker, in the transmission of what is commonly accepted as truth.

The position of mediation occupied by the translator or compiler results in his fluid status within the context of the public. On the one hand, the inevitable self-insertion of this figure into the target text requires that he assume an authorial role. On the other hand, as the steward of original information, he is at least theoretically charged with the responsibility of unbiased transfer, from which arises the critical concept of invisibility.

Despite the necessary—if not always intentional—impact of the compiler or translator upon the target text, his authorial contribution is not categorically acknowledged. Generally, translated texts remain subject to criticism that privileges “fluent” translations: “Under the regime of fluent translating, the translator works to make his or her work ‘invisible,’ producing the illusory effect of transparency that simultaneously masks its status as an illusion: the translated texts seems ‘natural,’ that is, not translated” (Venuti 2008 5).⁶³ Thus the translator’s creative input remains largely unacknowledged:

The translator’s invisibility is [...] partly determined by the individualistic conception of authorship that continues to prevail in British and American cultures. According to this conception, the author freely expresses his thoughts and feelings in writing, which is thus viewed as an original and transparent self-representation, unmediated by transindividual determinants (linguistic, cultural, social) that might complicate authorial originality. This view of authorship carries two disadvantageous implications for the translator. On the one hand, translation is defined as a second-order

⁶³ See Venuti (2008 1-13).

representation: only the foreign text can be original, an authentic copy, true to the author's personality or intention, whereas the translation is derivative, fake, potentially a false copy. On the other hand, translation is required to efface its second-order status with the effect of transparency, producing the illusion of authorial presence whereby the translated text can be taken as original (Venuti 2008 6).

Thus the translator's original contribution to a text—his authorial role—is not only minimized, but discouraged. In fact, a similar distinction to that which manifests itself between original text and translation also exists between literature and the work of reference. Like the translator, the encyclopedia compiler is charged with the task of unbiased transmission—the encyclopedic emphasis is on information rather than personal opinion. In literature the content of a work is understood by all readers to be subjective; while the author works from the inside out, using his text as a means of personal expression, the encyclopedia compiler works from the outside in, gathering information that is part of the public domain and subjecting it to his own organization and critique.

From a theoretical standpoint, however, translation has come to be viewed as its own genre, separate from other branches of literature, and therefore requiring its own set of theoretical assumptions:

Translation Studies scholars attempt to avoid preordained, fixed, and immutable prescriptives and remain open for constant self-evaluation and evolution. The variable approach acknowledges that

that object being investigated is not something fixed in the real world to be scientifically investigated, nor is it the object of higher, transcendental truth to be revealed in a mystical way. Rather, the objects to study are the translations themselves, which are by definition mediations subject to theoretical manipulation and prevailing artistic norms; at the same time, as Lefevere speculates, translations may influence those very same norms which determine them (Gentzler 77).

Challenges to the primacy of transparency and invisibility in the world of translation have increased by general acknowledgement of the fact that invisibility, like true objectivity in a work of reference, is never possible; Lawrence Venuti refers, for example, to the “illusion of transparency” (2008 1) and remarks that “the concept of the translator’s ‘invisibility’ is already a cultural critique, a diagnosis that opposes the situation it represents” (2008 13). In fact, theoretical criticism of the concept of invisibility sheds light on the inevitability of the insertion of the translator into the translated text, thereby confirming the very impossibility of transparency in translation, and by extension, in the context of encyclopedia compilation. Furthermore, the inevitable self-insertion of the translator or compiler into the target text betrays the authorial input of this agent. A lack of acknowledgement of this individual contribution risks homogenizing all translations or compilations by concealing the individual character of the text, thereby confounding the question of intellectual property and, in the case of encyclopedic works, influence among compilations. However, in considering the

theoretical conceptions relating to the translator's position of mediation, his authorial role, and the notion of invisibility, the uniqueness of the target text is upheld. In applying this theory within the context of the encyclopedia, the authorial input of each compilation is consequently brought to light, which in turn provides a platform for the assessment of the chains of influence that exist among encyclopedic texts.

From the dual role of the compiler as sender and receiver of information arise the complexities associated with a consideration of authorship in the context of the encyclopedia. An encyclopedia as a whole is situated somewhere between original creation, and collection of information, certainly including some level of common knowledge—that is, knowledge that can be said to belong to and arise from the public. Contributing to the individuality of an encyclopedia—and thereby contributing to what can be seen as the authorial contribution of the compiler—are factors such as the selection of entries for inclusion in the work, the editing and addition of material to the content of these entries, and the organization of the work as a whole. Thus the emphasis in considering the authorial individuality of such a work must not be limited to the content of the encyclopedia, as, by its very nature, this content is at least partly public property. Rather, it is in the way that the compiler selects and presents the information, thereby granting access to it, that the «originalité» and «individualité» of his contribution lies (Leca-Tsiomis 214). For example, by placing this information in a hierarchy of branches of knowledge, or, within one entry, by presenting information in the context of an argument, such as the question of whether

language is an invention of God or man, addressed in the articles “Langue” and “Langage” in the *Encyclopédie*, and the article “Language” in the *Encyclopaedia Britannica*.

The emphasis on the selection and presentation of information, as opposed to original content, marks a distinction from characterizations of authorship in a work of literature with respect to individuality and intellectual property. Therefore, particular issues arise with respect to copyright of encyclopedic texts. The Statute of Anne of 1710 had two principal features: first, “it introduced the concept of the author as the owner of literary property, in addition to the established practice of granting a privilege, or limited monopoly, to a bookseller, printer or publisher”; second, “it favoured a public domain in which society could reap the benefits of knowledge disseminated in books” (Yeo 2001 197). In outlining dominant views on this issue in the eighteenth century—notably, the rights of the author in relation to his work, versus the notion of a common pool of knowledge belonging to the public—Yeo remarks:

Encyclopaedias had an interest in the arguments of both sides.

These works advertised their utility, appealing to a public right to knowledge as a justification for collecting material from other works, including those under copyright. This met the second aspect of the legislation. Yet these works needed to be registered as *books* by *authors* in order to claim copyright protection under the Statute—protection that authors, or in most cases their booksellers,

demanding as necessary to ensure the intense labour and capital investment such large publications required (2001 204).

It is interesting that, with respect to copyright, Chambers found himself in the unique position not only of the lexicographer, but also the translator: Yeo cites comments made by Chambers and a colleague, in defense of a translation that they produced together, in which they argue for the value that they have added to the original work. Thus, “a translation might involve a claim of authorship” (Yeo 2001 207).

* * *

The concept of norms, central to translation theory, emphasizes equivalence as context bound and therefore changeable. A consideration of how conceptions of equivalence change and reflect a matrix of socio-cultural factors brings to light not only how these factors affect translation and other works of writing, but also how the works themselves operate within the system to reinforce or rebel against dominant views. The power of the work of writing is especially obvious in the case of translation or encyclopedia compilation, where there is an implied expectation of objectivity, which can be deliberately exploited to reflect the ideological positions of the translator and compiler. The self-insertion of the translator or compiler, which can be purposeful or accidental, serves to reinforce or challenge established norms, and in this way, the translation or encyclopedia is as much a factor in norm creation as norms are on the translation or encyclopedia.

In seventeenth- and eighteenth-century France and Britain, discussions on translation centred around questions of balancing source material and target audience. This period saw a break from strict adherence to classical models, and a renegotiation of the concept of faithfulness. In the context of the encyclopedia, this can be seen as an illustration of the tension between the two facets of universality that represent the ideal, as the compiler must balance the benefits of communicating the broadest scope of general and specialized information to the widest possible audience.

In balancing the constraints of source and target, and in thereby striving for universality, the role of the translator and the compiler is simultaneously oriented in two directions, a hybridity that arises especially from the position of mediation and the expectations of invisibility to which these figures are subjected.

Chapter 6. *L'Encyclopédie en-tour-ante*: Babel and the Universal Ideal

In considering the genre of the encyclopedia itself as well as its interaction with the public, the form of the encyclopedic relationship with public and knowledge is revealed as spiraling and perpetual. This is the result of the self-propagation of the system by the continuing and reciprocal influence of its elements, arising from the compiler's hybrid role as sender and receiver of public information. This connection that has at its core the relationship between public and knowledge-turned-information-turned knowledge also factors into the translation process.

The relevance of Babel in translation theory has been well established. The allegory, especially as it relates to translation, is used here as a model; considering how Babel can represent the encyclopedic process provides another point of access to understanding the structure of the encyclopedia with regard to knowledge and public, as informed by the contradiction of necessity and impossibility that characterize compilation in this context. In fact this paradox has been not only recognized but much-discussed in translation theory. In taking the theoretical starting point of translation as Babel, an interconnection similar to that of encyclopedia, knowledge, and public which characterizes the compilation process is central to translation, arising from the necessary impossibility of the process from its very beginnings: «Cette histoire raconte, entre autre choses, l'origine de la confusion des langues, la multiplicité irréductible des idiomes, la tâche nécessaire et impossible de la traduction, sa nécessité *comme* impossibilité»

(Derrida 215). In Babel, the dispersion of tongues is a deliberate barrier to communication and understanding from which arises the need for translation—there would be no translation without incommunicability.

Jacques Derrida's *Des Tours de Babel*, in which he discusses Babel from the point of view of necessity and impossibility, arising from his reading of Walter Benjamin's *Die Aufgabe des Übersetzers*, is obviously salient, and contributes to our discussion of encyclopedia compilation as a Babelian pilgrimage. We draw upon this text to inform the discussion of the encyclopedia's complex position in regard to knowledge and public, while acknowledging that it is decidedly un-Derridian to excerpt from one text of his body of work only, as his writings could not be taken in isolation from one another from a strictly deconstructionist standpoint. Although Derrida has written extensively on translation, writing which calls for more in-depth analysis than this thesis provides, we do not claim to adopt a deconstructionist or Derridian approach; therefore, this would not be the proper forum to address the inherent complexities that lie within Derrida's corpus as a whole. Rather, we see Derrida's writings on Babel as useful by their conceptions of Babel in promoting the structural properties of the relationship in question as presented in this thesis.

Babel and Structure

Babel represents the paradox not only of translation, but more generally of processes such as the encyclopedia compilation aiming at universal sharing of

information-turned-knowledge by and for the public. The allegory of Babel connects the processes of translation and compilation, as both are legitimized by their impossible goal of universality, a paradoxical position informing their structure with respect to knowledge and public. The patterns of influence operating on the compilers spiral in continuous motion that defies chronology, as it defies the identification of beginning and end. Furthermore, countless mutual influences take place constantly; therefore, there can be no linearity to these chains of influence. Because a starting point cannot be assigned to such a process, the boundaries between the encyclopedia, knowledge, and the public are in flux and forces of influence cannot be discretely separated from one another. The overlap among these categories—encyclopedia, knowledge, public—and among various operating influences also results in the necessity of the process, because each agent depends on the other for its existence.

Survie

The self-propagation of the system of knowledge, public, and translation implies the relationship of debt and obligation: “[Translations] do not so much serve the work as owe their existence to it. The life of the originals attains in them to its ever-renewed latest and most abundant flowering” (Benjamin 2004 77). This is echoed in Derrida’s «Des Tours de Babel», in which he sees the original text as requiring translation for its *survie*; it is of interest that Joseph F. Graham, translator of «Des Tours de Babel», alludes in his translator’s notes to the

complexity of this term: “The word means ‘survival’ as well as ‘afterlife’; its use in the text also brings out the subliminal sense of more life and more than life” (206). Derrida himself comments that Benjamin’s text «circule sans cesse entre les valeurs de semence, de vie et surtout de “survie” (*Überleben* a un rapport essentiel avec *übersetzen*)» (222).⁶⁴

The original text is presented as in some way limited, and therefore calls for completion through translation: «Car si la structure de l’original est marquée par l’exigence d’être traduit, c’est qu’en faisant la loi l’original commence par s’endetter aussi à l’égard du traducteur. L’original est le premier débiteur, le premier demandeur, il commence par manquer et par pleurer après la traduction» (Derrida 227-228). Derrida remarks that the relationship of obligation takes place among texts, as opposed to the agents associated with them: «le lien ou l’obligation de la dette ne passe pas entre un donateur et un donataire mais entre deux textes (deux “productions” ou deux “creations”)» (223). Ultimately, this bond results in continued life, or *survie*, of the text, though not necessarily of any other element of the production. Of Benjamin’s *Die Aufgabe des Übersetzers*, Derrida writes:

[Benjamin] nomme le sujet de la traduction, comme sujet endetté, obligé par un devoir, déjà en situation d’héritier, inscrit comme survivant dans une généalogie, comme survivant ou agent de survie. La survie des oeuvres, non pas des auteurs. Peut-être la

⁶⁴ This thesis refers to Benjamin’s work only in translation. The analysis of his concept of survival is therefore limited, whereas it can be assumed that Derrida’s interpretation is informed by a reading of the original German text. As mentioned in the notes following the translated version that we are using, the English translation of Benjamin’s text is somewhat problematic.

survie des noms d'auteurs et des signatures, mais non des auteurs (Derrida 223).

For its part, the act of compilation privileges the survival of the material that forms its content, potentially at the expense of the conspicuous identification of the author of original sources, or the compiler himself. In some cases, the compilation itself lives on and develops as an anonymous entity; the *Encyclopaedia Britannica* is a notable example; having undergone fifteen editions in print, plus reorganization for the online audience, the current version retains little connection to its first compiler and his colleagues. The content of the encyclopedia, selected and edited by the compiler, by its very dissociation from its context, comes to enjoy a reputation of objectivity, which in fact serves to perpetuate its survival. This contributes to the difficulty in assessing genealogical relationships among compilations—the encyclopedic life cycle itself dictates the obscurity of identifiable sources. Though theoretically the compiler's influence remains embedded within the decontextualized content, the hybrid role of the compiler and the interconnection of encyclopedia with knowledge make identifying any original source a very complex proposition.

The notion of survival through translation and, more generally, the relationship of mutual trust between source and target text, points to the symbiotic and inextricable relationship that exists between original and translation. George Steiner proposes the term *interanimation* to express one class of translational transformations, or what he terms “partial transformations” which extend “from

most literal translation to parody and oblique, even unconscious echo or allusion” (476):

‘Interanimation’ signifies a process of totally attentive interpenetration. It tells of a dialectic of fusion in which identity survives altered but also strengthened and redefined by virtue of reciprocity. There is annihilation of self in the other consciousness and recognition of self in a mirroring motion. Principally, there results a multiplication of resource, of affirmed being. ‘Interanimated’, two presences, two formal structures, two bodies of utterance assume a dimension, an energy of meaning far beyond that which either could generate in isolation or in mere sequence. The operation is, literally, one of raising to a higher power (476).

The very notion of original and translation as combining to form an enhanced whole necessarily implies a correspondence, or “kinship” (Benjamin 2004 77), among languages. Looking at this relationship from the point of view of the encyclopedia, the compiler submits information from previous sources and influences—absorbed into his own framework knowledge—to his own organizational template and in the process, aims to increase its accessibility and value for the public, resulting in an attempt, if not always a success, at reaching the heightened “energy of meaning” to which Steiner refers. Picking up previous material—sometimes encyclopedic—and attempting to improve upon it is an implicit theme that recurs in the commentary of compilers and lexicographers. In arguing for the originality, and therefore the value, of their work, these authors

implicitly acknowledge the “kinship” that can be seen to exist among works of reference. Though the spirit may be one of competition, in practice, borrowing in this context can be seen as an act of cooperation in the pursuit of universality. This is made possible by the compiler’s hybrid role, as giver and receiver of knowledge and information; it is by this dual role that he is able to strive toward improvement, that is, universality and universal access. Yet as we have seen, this role also accounts for the impossibility of attaining the encyclopedic goal—nevertheless, it is this intention of universality that parallels the theoretical utopia of pre-Babelian linguistic accord.

Archive

The concept of survival and self-perpetuation points to what can be called the archival function of translation and encyclopedia compilation. Just as a translation fulfills the role of an archive of a period of the life of a literary work,⁶⁵ so too does the encyclopedia. For the encyclopedia, the evolutionary nature of knowledge prevents it from remaining a reliable source of current information—thus this initial function of the encyclopedia, either as a tool to be consulted on a per-case basis, or as a comprehensive representation of current knowledge, cannot be sustained; indeed, any compendium that seeks to capture knowledge in real-time is immediately outdated. It is this very same property of knowledge that betrays the encyclopedia’s goal of universality and reinforces the cyclical-spiraling structure of the relationship among public, knowledge, and

⁶⁵ See Benjamin.

encyclopedia. Arising from this property of knowledge, and also reinforcing it, are the backward reaching chains of influence operating on the compiler.

From the perspective of its initial intention, the encyclopedia quickly becomes obsolete, but it takes on the function of historical archive, serving as a record of a moment in history, and specifically, in the history of an idea, a concept, or a field of knowledge. In this way, the encyclopedia strives toward the goal of universality even after it has been outdated in any informational sense, contributing as it does to the theoretical though unattainable end point, when the encyclopedic fragments, to use the terms of the English translation of *Die Aufgabe des Übersetzers*, can combine to encompass and account for all knowledge. There would be no call for multiple encyclopedias, if not for the fact that each brings a new perspective to a mass of knowledge that is believed to be within reach, at least theoretically. Despite the goals of thematic universality, however, the notion of universal knowledge ultimately proves unattainable; even within one field of study, total completeness is theoretically impossible. Nevertheless, it remains the hypothetical purpose of the ideal encyclopedia, and therefore of the encyclopedic genre. The act of compiling, though failing to capture ideal knowledge, serves as an integral part of this pursuit, parallel to translation as oriented toward pre-Babelian universal comprehension.

In recounting the dispersion of languages, Babel highlights the interrelationship among languages by positioning each as a part of what was once one original tongue. Reacting to Benjamin's text, Derrida remarks:

Où chercher alors cette affinité originaire? Nous la voyons s'annoncer dans un ploiement, un reploiement et un co-déploiement des visées. A travers chaque langue quelque chose est visé qui est le même et que pourtant aucune des langues ne peut atteindre séparément. Elles ne peuvent prétendre l'atteindre, et se le promettre, qu'en co-employant ou co-déployant leurs visées intentionnelles, "le tout de leurs visées intentionnelles complémentaires." Ce co-déploiement vers le tout est un reploiement car ce qu'il vise à atteindre, c'est "le langage pur" ("die reine Sprache"), ou la pure langue (244).

There is an evocation of a better time, an earlier state. Universality in this sense expresses the goal of being all-encompassing, but more specifically of encompassing a past that has been lost and, implicitly, that there is a hope of regaining:

No civilization but has its version of Babel, its mythology of the primal scattering of languages. There are two main conjectures, two great attempts at solving the riddle via metaphor. Some awful error was committed, an accidental release of linguistic chaos, in

the mode of Pandora's box. Or, more commonly, man's language condition, the incommunicados that so absurdly divide him are a punishment. A lunatic tower was launched at the stars; Titans savaged one another and of their broken bones came the splinters of isolated speech; eavesdropping, like Tantalus, on the gossip of the gods, mortal man was struck moronic and lost all remembrance of his native, universal parlance (Steiner 59).

The Babelian perspective of positioning each language as a part of what was once one original tongue, and the goal of recovering this harmonious state, can be seen in relation to the goal of complete knowledge characterized by the encyclopedic impulse. In this framework, the restorative function of translation can be linked to what may be regarded as the encyclopedic quest for complete knowledge. As Yeo remarks, "In Western culture, the concept of an encyclopaedia has come to symbolise universal or total knowledge" (2001 1).

A scheme that views recapturing the original un-fractured state of language as the ultimate, impossible goal (and reason for) translation can be seen in relation to the aim toward universality that characterizes the encyclopedic process. The role of the encyclopedic genre—though not of every individual encyclopedia—is to construct, or reconstruct, the concept of knowledge that is all-encompassing in audience and scope, through the theoretical possibility of a complete record of every branch of knowledge that can be made universally comprehensible. In Derrida's terms, the emphasis is on universal knowledge *a priori*—previously lost in a Babelian sense, and then regained. In fact, this

perspective is historically accurate; the encyclopedia was originally regarded as a means of preserving the knowledge that had been recovered since the Fall: “In the event of a catastrophe, it would be a summary of intellectual accomplishments to be reactivated by a later age. This is the most powerful encyclopaedic vision: a work containing the collective knowledge of a community which might be put together again if all other books were lost” (Yeo 2001 3).⁶⁶ In fact the compilers were consciously aware of this purpose, as evidenced by Diderot’s comments in his entry “Encyclopédie”: «Nous avons donc entrepris aujourd’hui pour le bien des Lettres & par intérêt pour le genre humain, un Ouvrage auquel nos neveux auroient été forcés de se livrer, mais dans des circonstances beaucoup moins favorables; lorsque la surabondance des livres leur en auroit rendu l’exécution très-pénible» (5: 644-645). This viewpoint also pervades the compilers’ prefatory material: Chambers remarks in his preface, “it will appear, that a Work accomplish’d as it ought to be, on the Footing of this, would answer all the Purposes of a Library, except Parade and Incumbrance” (1: ii), while the preface to the *Encyclopédie* states, «nous inférons que cet Ouvrage pourra, du moins un jour, tenir lieu de bibliotheque dans tous les genres à un homme du monde; dans tous les genres, excepté le sien, à un Savant de profession» (1: xlj).⁶⁷ Because of the ultimate impossibility of creating any totally complete compilation, each encyclopedia can be seen as contributing to this shared goal. This reinforces the

⁶⁶ See Chapter 1.

⁶⁷ These assertions call to mind the Jorge Luis Borges’s concept of the total library, although as Yeo remarks, the encyclopedic viewpoint is at odds with that of Borges story, which “can be read as a malicious satire of the encyclopaedic tradition and its promise of a book of universal knowledge” (2001 4).

concept of the individual encyclopedia as a portion of a larger whole, which in turn supports the critical importance and originality of each one.

Derrida himself invokes the theoretical encyclopedic ideal—he writes of the myth of Babel: «Disant au moins l'inadéquation d'une langue à l'autre, d'un lieu de l'encyclopédie à l'autre, du langage à lui même et au sens, etc., il dit aussi la nécessité de la figuration, du mythe, des tropes, des tours, de la traduction inadéquate pour suppléer à ce que la multiplicité nous interdit» (209). The concept of the encyclopedia in this statement serves to illustrate the fragmentary nature of language and knowledge, in reference to the ultimate, though unattainable, totality. Thus Derrida's encyclopedia can be likened to the original universal language, of which individual tongues—or individual «lieu[x] de l'encyclopédie»—form the total; in summoning this totality, Derrida simultaneously alludes to the «inadéquation» (209), and implicitly, therefore, the impossibility of this universality ever being attained.

Babel in the Encyclopedias

The reflexivity of Babel is concretely symbolized by the encyclopedia's treatment of the concept within their pages. In his preface, Chambers himself makes the connection between Babel and knowledge:

While the notions of *Term* and *Art*, remain'd yet in the Rubbish they were left by the Schoolmen; those of *Definition* and *Dictionary* must needs be vague and arbitrary enough; and the

Dictionarists and Expositors, profited by an Embarrass it was their Business to have remov'd. They have not only built on it, but improv'd it, by a continual varying and confounding of Views, imperfect Enumerations, &c.

'Tis not to be imagin'd, the Mischiefs, and Inconveniences that have arose from this single Head; the great Uncertainty it has introduc'd into Language; and the Obstacle it has been to the Improvement thereof. 'Tis certain it has, in great measure, defeated the Intention of Speech; and turn'd Knowledge which that was to be the Medium of, into Jargon and Controversy. All the Confusion of Babel is brought upon us hereby; and People of the same Country, nay the same Profession, no longer understand one another (1: xxi-xxii).

Chambers's discussion of the myth of Babel within the entry for "Language" centers principally around two questions: how the confusion of Babel was imposed, and the nature of the original tongue, before the fall of the Tower. Chambers remarks that the diversity of languages "is generally allowed to have took its Rise from the Confusion of *Babel*, both by Jews, Christians, and Mahometans" (2: 429). Chambers addresses the fact, however, that there is dispute as to "Whether God only expunged the Remembrance of the Signification of Terms in those who built the Tower; or whether he immediately inspired them with new Words" (2: 429). Discussing some specific possibilities for how the confusion came about, Chambers cites outside sources:

Scaliger holds that they only forgot the Meaning of the Words, and named one thing instead of another; tho' all indifferently spoke the *Hebrew Tongue*. Nor does *Casaubon* allow that they immediately spoke different *Languages*: the Confusion of Tongues he thinks might be very well effected, without introducing a Multiplicity of *Languages* (2: 429).

There is an irony in the fact that Chambers's discussion of Babel—an analogy that governs the genre by the necessary and inescapable connection among humans and ultimate incomprehensibility among them—should include reference to other historians. In discussing Babel, Chambers therefore actively—almost deliberately—participates in the Babelian nature of encyclopedia making. Similarly, the article *Multiplication miraculeuse des langues* within the Beauzée's general entry "Langue," containing the discussion of Babel, also opens with writing from an outside source, M. Pluche.⁶⁸ In this account, the tower of Babel was built when the people had to disperse for need of supplies, so that they would be able to find one another again. «*Bâtissons, dirent-ils, une ville & une tour qui s'élève dans le ciel. Faisons-nous une marque * reconnoissable, pour ne nous pas désunir en nous dispersant de côté & d'autre*» (9: 254). Due to the importance of this myth in translation theory, it is ironic that Pluche takes issue with how the story has been translated:

Le crime que Moïse attribue aux enfans de Noé, n'est pas, comme les LXX l'ont traduit, de se vouloir faire un nom avant la dispersion; mais comme porte littéralement le terme original,

⁶⁸ M. Pluche, *Spectacle de la nature*, as noted in the *Encyclopédie* entry.

c'étoit de se construire une habitation qui pût contenir un peuple nombreux, & d'y joindre une tour qui étant vue de loin, devînt un signe de ralliement, pour prévenir les égaremens & la séparation (9: 254)

Thus, Pluche argues that God objected not to humans creating language, but to their disobedience of his will that humans disperse. Pluche points out the ingenuity of the creation of language, and then different languages, to fulfill seemingly contrary goals in relation to this dispersion.

Rien de plus digne de la sagesse divine que d'avoir d'abord employé pour peupler promptement les différentes contrées, le même moyen qui lui sert encore aujourd'hui pour y fixer les habitans & en empêcher la desertion. Il y a des pays si bons & il y en a de si disgraciés, qu'on quitteroit les uns pour les autres, si l'usage d'une même *langue* n'étoit pour les habitans des plus mauvais une attache propre à les y retenir, & l'ignorance des autres *langues* un puissant moyen d'aversion pour tout autre pays, malgré les desavantages de la comparaison (9: 254).

The notion of Babel as a natural way to encourage dispersion, rather than a form of retribution, is upheld by Beauzée, the principal author of the article. Overall, Beauzée sees the capacity for language as God-given. His assessment of the dispersion of languages can be summarized as follows:

Dieu avoit fait les hommes sociables; il leur inspira la premiere *langue* pour être l'instrument de la communication de leurs idées,

de leurs besoins, de leurs devoirs réciproques, le lien de leur société, & sur-tout du commerce de charité & de bienveillance, qu'il pose comme le fondement indispensable de cette société.

Lorsqu'il voulut ensuite que leur fécondité servît à couvrir & à cultiver les différentes parties de la terre qu'il avoit soumises au domaine de l'espece, & qu'il leur vit prendre des mesures pour résister à leur vocation & aux vûes impénétrables de sa providence, il confondit la *langue* primitive, les força ainsi à se séparer en autant de peuplades qu'il en résulta d'idiomes, & à se disperser dans autant de régions différentes (9: 256).

Further in the entry, there is a fascinating parallel established between Beauzée's assessment of how difficult it is to assess the diversity of languages, and the issue of intellectual encyclopedic property—the same grey area of gradual change and appropriation applies in both contexts:

si la filiation des *langues* suppose dans celle qui est dérivée la même syntaxe, la même construction en un mot, le même génie que dans la *langue* matrice, & une analogie marquée entre les termes de l'une & de l'autre, comment peut se faire la génération des *langues*, & qu'entend-on par une *langue* nouvelle? (9: 263).

This comment can be seen as suggesting a deconstructive view of language and, by extension, text, in a way that Leca-Tsiomis recognizes as proper to reference material: «Définir est donc déconstruire, résoudre le complexe en éléments simples [...] Définir un terme, c'est donc parvenir à analyser

l'assemblage d'idées qui le composent» (Leca-Tsiomis 190-191). It is of interest that there is another explicit connection between Derrida's concept of trace and the discussion of language in the *Encyclopédie*, as noted by M. de Grandval, a source referred to by Beauzée:

une *langue* est la même, malgré ses variations, tant qu'on peut suivre ses traces, & qu'on trouve dans son origine une grande partie de ses mots actuels, & les principaux points de sa grammaire [...] J'ajoute qu'une *langue* est véritablement la mere ou la source d'une autre, quand c'est elle qui lui a donné le premier être, que la dérivation s'en est faite par succession de tems, & que les changemens qui y sont arrivés n'ont pas effacé tous les anciens vestiges (9: 263).

This same complication that is not only inherent in but a defining feature of the encyclopedia, and that also prohibits the definition and identification of any one encyclopedia—namely the issue of a backward spiral of influence—is also touched upon by Beauzée with regard to language:

Ces changemens successifs qui transforment insensiblement une *langue* en une autre, tiennent à une infinité de causes dont chacune n'a qu'un effet imperceptible; mais la somme de ces effets, grossis avec le tems & accumulés à la longue, produit enfin une différence qui caractérise deux langues sur un même fonds (9: 263).

In discussing the notion of the «infinité des causes», Beauzée actively illustrates his dual role as a compiler as non-member and member of the public.

He describes the paradox of the encyclopedia from within; through the medium of the encyclopedia: this is the contradiction of necessity and impossibility in action.

With respect to the diversity of languages, Smellie also sees this as related simply to the dispersion of man. Although Smellie does not allude to Babel, he supports the idea of language variety as a necessary consequence of man's dispersion. In this way, his statement is consistent with Beauzée's view, that the changes caused by the fall of the Tower are no different from what nature would have dictated, had man dispersed of his own will:

as man is naturally an imitative animal, and in matters of this kind never has recourse to invention but through necessity; if by some accident any part of a nation should be separated from that community to which they belonged, after a language had been invented, they would retain the same general sounds and *idiom* of language with those from whom they were separated; although in process of time these two people, by living in countries of a dissimilar nature, or being engaged in different occupations, and leading a different manner of life, might in time lose all knowledge of one another, assume a different national character and opposite dispositions of mind, and form each of them a distinct language to themselves, totally different in genius and style, though agreeing with one another in the fundamental sounds and general idiom (2: 864).

Translation and encyclopedism are legitimized by the impulse toward finding common ground, and the assumption that there is universal territory to be found.

Interestingly, this is a question addressed in the encyclopedias proper, with regard to the myth of Babel. Not only is there debate over how language was dispersed, but why. Another issue treated by the encyclopedias relates to the true nature of the original tongue. While the encyclopedias discuss this question in terms of specific languages, Derrida asks and answers this question in broader terms: «dans quelle langue la tour de Babel fut-elle construite et déconstruite? Dans une langue à l'intérieur de laquelle le nom propre de Babel pouvait aussi, par confusion, être traduit par 'confusion'» (210).

*Translation in the Encyclopedias*⁶⁹

Having considered the Babelian character of the encyclopedic task, and how Babel itself is represented within the pages of the *Cyclopaedia*, the *Encyclopédie*, and the *Britannica*, there is a self-evident link between translation and encyclopedic compilation. Therefore, considering the compilers' discussion

⁶⁹ There has been interesting commentary on translation as treated in the *Encyclopédie*: notably, «Le discours implicite sur la traduction dans l'*Encyclopédie*», by José Lambert, and «Unité et diversité de la réflexion traductologique en France (1722-1789)» by Lieven D'Hulst, both of which appear in *La Traduction en France à l'âge classique*, edited by Michel Ballard and Lieven D'Hulst. These articles also address the comparison of translation in the *Encyclopédie* proper and in the *Supplément à l'Encyclopédie*, published in 1776-1777. The in-depth insight into translation as addressed in the *Encyclopédie* provided by these articles complements the brief discussion of this topic that follows, which is approached as part of the larger context of encyclopedia compilation and translation as joint processes in shared universality.

on translation sets the stage for the more overtly reflexive commentary that is later explored in the compiler's prefaces and entries on the encyclopedia.

The encyclopedias vary in the way that they distinguish between the process and the product of translation. The only explicit mention by Chambers of translation in the sense of transfer from one language to another is in the definition of the product of translation, as "the Version of a Book, or Writing out of one Language into another" (2: 234). The *Cyclopaedia* also contains an entry for "Traduction," however, in which translation as a literary process is made explicit as "the *Translating*, or turning out of one Language into another" (2: 230).

Despite the brevity of *Encyclopaedia Britannica*'s entry, Smellie also draws a distinction between process and product, in identical terms as Chambers's "Translation," save for differences in punctuation. As in the case of Chambers, the definition of translation as a process is extremely broad and, as noted above, likely etymologically-motivated, while translation as a product is defined as "the version of a book or writing out of one language into another" (3: 902).

Although the article "Traduction" in the *Encyclopédie* gives an exact definition only of the product of translation, «la copie qui se fait dans une langue d'un discours premierement énoncé dans une autre» (16: 510), the process of translation is directly implied throughout the entry.⁷⁰ For example, there are several instances of the verb, «traduire»; furthermore, there is reference made to

⁷⁰ It is fitting that the *Encyclopédie*, the only one of the three works that was officially born from a translation project, should treat the subject in the most detail.

«l'art de la traduction» (16: 511), as well as «[l]es principes de la traduction» (16: 511)—in fact, the description of the process of translation is much more thorough, although implicit, in the *Encyclopédie* than in the other compilations.

In addition to process and product, the agent of translation is also addressed in the *Cyclopaedia* and the *Encyclopédie*, while Smellie's definition, likely due to its brevity, does not include any such discussion. In the case of the *Cyclopaedia*, Chambers mentions the figure of the translator within the body of his entry on translation, at the end. In the case of the *Encyclopédie*, the translator is the subject of a separate entry, written by the Chevalier de Jaucourt, although the translator is also mentioned in Beuzée's entry "Traduction."

In both the case of the *Cyclopaedia* and the *Encyclopédie*, there is a disconnection in the judgment of the value of translation, compared to the moral assessment of the figure of the translator. In the *Cyclopaedia*, Chambers's assessment of translation, both as a general action, and a literary product, is neutral; there is no positive or negative connotation associated in either case. On the other hand, the translator is the subject of personal commentary in the entry:

Translators frequently endeavour to excuse themselves at the
Expençe of their Language; and ask Pardon for it, as if it were not
rich and copious enough to express all the Force and Beauties of
the Original.

Thus is the *English* Tongue accus'd of the Poverty and Dryness
which is in the *Translator's* own Genius; and the Faults charg'd on
that, which should only lie at their own Doors (2: 234).

In this statement, Chambers portrays the translator in general not only as unskilled, but also as unwilling to take responsibility for his actions. The quote does not imply a negative view of translation; in fact, in noting the ability of language—or English, at least—to express “the Force and Beauties of the Original,” Chambers implicitly endorses the potential of translation. Thus, any shortcomings in the target text are the fault of the translator, rather than the inevitable consequence of translation. In the closing remarks of the article, Chambers includes the proverb, «*Traduttore, Traditore: A Translator, a Traytor*» (2: 234). Chambers fails to explain that the saying generally refers to inevitable betrayal at a textual level. Thus, in the entry, it serves as another marker of the character of the translator.⁷¹

In the *Encyclopédie*, the contrast between translation and the translator centres upon the acknowledged difficulty of the task of translation, and is particularly apparent in the comparison of the entries “Traduction” and “Traducteur.” In privileging the difficulty of the process, the entry on translation seems to take a sympathetic tone toward the translator, although it also implies the rarity of the translator’s success. On the other hand, the article “Translator” emphasizes negative personal characteristics of the agent of translation.

Translation, cited as an «art» in the article “Traduction,” is recognized as a unique literary challenge, that, if properly effectuated, marks a great accomplishment:

⁷¹ It is interesting that despite Chambers’s involvement in several translation projects he should take such a critical view of the translator (see Chapter 3).

Pour rendre tous ces degrés [de la variété de tons qui se trouvent nécessairement dans un même sujet, & à plus forte raison dans un même genre], il faut d'abord les avoir bien sentis, ensuite maîtriser à un point peu commun la langue que l'on veut enrichir de dépouilles étrangères. Quelle idée donc ne doit-on pas avoir d'une traduction faire avec succès? (16: 511).⁷²*

Further outlined in the entry are the complexities of translation, as related to the goal of the translator himself:

Quand il s'agit [...] de représenter dans une autre langue les choses, les pensées, les expressions, les tours, les tons d'un ouvrage; les choses telles qu'elles sont, sans rien ajouter, ni retrancher, ni déplacer; les pensées dans leurs couleurs, leurs degrés, leurs nuances; les tours qui donnent le feu, l'esprit, la vie au discours; les expressions naturelles, figurées, fortes, riches, gracieuses, délicates, &c. & le tout d'après un modele qui commande durement, & qui veut qu'on lui obéisse d'un air aisé: il faut, sinon autant de génie, du-moins autant de goût, pour bien traduire que de composer. Peut-être même en faut-il davantage (16: 511).*

This comment implies the difficult position that the translator faces, which is made more explicit in the following statement: «Le traducteur n'est maître de rien; il est obligé de suivre par-tout son auteur, & de se plier à toutes ses

⁷² This, and the following two quotes, marked *, are from a passage in the entry by Charles Batteux, author of *Cours de belles-lettres*, published in 1750, which includes a section on translation. We take these comments to be reflective of Beauzée's views on translation, as Beauzée's own comments seem to support those of Batteux.

variations avec une souplesse infinie»* (16: 511).⁷³ Beauzée supports these comments, alluding to the difficulty in striking a balance between source and target-oriented translation:

Rien de plus difficile en effect, & rien de plus rare qu'une excellente traduction, parce que rien n'est ni plus difficile ni plus rare, que de garder un juste milieu entre la licence du commentaire & la servitude de la lettre. Un attachement trop scrupuleux à la lettre, détruit l'esprit, & c'est l'esprit qui donne la vie: trop de liberté détruit les traits caractéristiques de l'original, on en fait une copie infidele (16: 511).

This passage, while recognizing the labour of the translator, also suggests the elusiveness of a balanced, and therefore acceptable, translation; this is further implied by the inclusion in the entry of a word-level critique of an existing translation, deemed «repréhensible» by Beauzée (16: 511). The perceived rarity of a satisfactory product may explain the disconnection in the *Encyclopédie* between the concept of translation as a noble art form, and the figure of the translator as the subject of criticism. The theoretically ideal translator—that is, the translator of material deemed acceptable, that conserves «l'ordre des idées de l'original, la précision de sa phrase, la propriété de ses termes» (16: 511)—is the subject of approval and support, while the working translator is generally regarded as falling short of his task: «J'avoue que ce n'es pas toujours une tâche fort aisée; mais qui ne la remplit pas n'atteint pas le but» (16: 511).

⁷³ This comment appears to contradict charges of disloyalty against the translator, which are brought up in Jaucourt's entry for "Traducteur."

In the article “Traducteur,” the perceived shortcomings of the translator become concrete in the form of criticism at a personal level. Jaucourt acknowledges once again the difficulty of the task facing the translator, in a statement that suggests that failure on the part of the translator may be inevitable:

les matieres de sciences & de dogmes, exigent d’un *traducteur* une grande précision dans les termes. Celles que décrit la Poésie, rejettent les périphrases, qui affoiblissent les idées; & un attachement servile, qui éteint le sentiment. La représentation scrupuleuse de tous les membres d’un poète, n’offre qu’un corps maigre & décharné; mais la représentation libre ne doit pas être infidelle (16: 510).

In this case, the double bind facing the translator affords him no flexibility, as the author equates the translator with the traitor, thereby evoking the proverb included in Chambers’s entry: Jaucourt notes, «On dit que M. de Sevigné comparoit les *traducteurs* à des domestiques qui vont faire un message de la part de leur maître, & qui disent souvent le contraire de ce qu’on leur a ordonné» (16: 510). Endorsing this point of view, the author adds of translators, «Ils ont encore un autre défaut de domestiques, c’est de se croire aussi grands seigneurs que leurs maîtres, surtout quand ce maître est fort ancien & du premier rang» (16: 510). Thus, the article “Traducteur” represents the translator as disloyal, and overly proud, failing to accept his secondary status in literary culture.

In the entry “Translation, (Belles-lettres)” in the *Encyclopédie*, the author reiterates the critical assessment of the translator found in the *Cyclopaedia*. In a

literal translation, he invokes Chambers's charges against the translator who fails to take responsibility for his own limitations:

Souvent les traducteurs tâchent de s'excuser aux dépens de la langue dans laquelle ils traduisent, & demandent grace pour cette langue, comme si elle n'étoit pas assez riche & copieuse pour exprimer toute la force & toutes les beautés de l'original.

Ainsi un traducteur accuse la langue angloise de la pauvreté & de la sécheresse, qui ne se trouve que dans son propre génie, & il met sur le compte de la langue, toutes les fautes qu'il ne devoit imputer qu'à lui même (16: 555).⁷⁴

The articles "Traducteur" and "Translation, (Belles-lettres)" are in contrast with the esteem given to the practice of translation in the article "Traduction"; indeed, as previously suggested, this very deference may be part of the reason for the impossible schism between the theoretical ideal and the practical application of translation.

Of course, the fact remains that these entries are written by different authors, the "Translation, (Belles-lettres)" fulfilling a duplicate role to that of "Traduction." It is also true that in the case of the article "Traducteur," written by Jaucourt, the author's lack of expertise or interest may have contributed to its tone:

⁷⁴ Probably written by Antoine-Gaspard Boucher d'Argis, a lawyer who was involved in the campaign for the reversal of the guilty verdict against Jean Calas (Kafker 1988 52). It is surprising that the author follows the *Cyclopaedia* entry so literally as to not modify Chambers's statements on English, to French.

While there were some subjects he did not write about (among them Logic, Mechanics, Military Strategy, Navy, and Falconry), hardly any topic seemed beyond his readiness to do his best if there was no other contributor at hand and an article needed to be written. As a result, the articles are often hastily written, copied in part from other works, and undistinguished, as might be expected from a medical doctor writing about areas of knowledge in which he had no special expertise of interest (Blom 291).

As explained above, however, we consider the entries of each article to represent the opinion of its author, and to broadly reflect the *Encyclopédie* as a whole; thus, the French work can be seen to promote translation, but express skepticism as to the possibility of what is deemed a successful realization of the translation process.

Another feature of the entries on translation is the discussion of translation and version. In the case of Chambers and Smellie, the concepts of translation and version are considered to be interchangeable; a version is therefore defined as “a *Translation* of some Book, or Writing, out of one Language into another” (2: 298).⁷⁵ In the case of the *Cyclopaedia*, known for its system of cross-references, the article “Translation” also refers the reader to the entry for “Version,” and vice versa.⁷⁶

⁷⁵ As in the case of “Translation,” Smellie’s definition is the same, except in its punctuation.

⁷⁶ In the article “Translation” in the *Encyclopédie*, there is an equivalent definition: «Translation, (Belles-lettres) signifioit autrefois version d’un livre, ou d’un écrit, d’une langue dans une autre. Aujourd’hui on dit *traduction*» (16: 554-555). This part of the article “Translation,” translated literally from Chambers’s “Translation,” refers readers to the entry “Version,” as in the *Cyclopaedia*, although in the *Encyclopédie*, there is no reference back from “Version” to “Translation,” or “Traduction.”

In the *Encyclopédie*, although *version* is listed as a synonym of *traduction*, a great deal of the entry for the latter term is devoted precisely to distinguishing it from a version. Toward the beginning of the article, Beauzée reflects:

Il me semble que la *version* est plus littérale, plus attachée aux procédés propres de la langue originale, & plus asservie dans ses moyens aux vûes de la construction analytique; & que la traduction est plus occupée du fond des pensées, plus attentive à les présenter sous la forme qui peut leur convenir dans la langue nouvelle, & plus assujettie dans ses expressions aux tours & aux idiotismes de cette langue (16: 510).

In the entry, Beauzée sees the concept of translation as building on that of version—for example, he notes that in learning to translate, producing versions is the best practice: «les translations que l’on fait faire aux jeunes gens dans nos collèges du grec ou du latin en françois, sont très-bien nommées des *versions*: les premiers essais de *traduction* ne peuvent & ne doivent être rien autre chose» (16: 511).

Interestingly, Beauzée includes in his entry a practical assessment of what functions are at play when producing a version, versus a translation:

La *version* littérale trouve ses lumieres dans la marche invariable de la construction analytique, qui lui sert à lui faire remarquer les idiotismes de la langue originale, & à lui en donner l’intelligence, en remplissant les vuides de l’ellipse, en supprimant les

redondances du pléonasme, en ramenant à la reftitude de l'ordre naturel les écarts de la construction usuelle [...].

La *traduction* ajoute aux découvertes de la *version* littérale, le tour propre du génie de la langue dans laquelle elle prétend s'expliquer: elle n'emploie les secours analytiques que comme des moyens qui font entendre la pensée; mais elle doit la rendre cette pensée [...] Il n'en faut rien retrancher, il n'y faut rien ajouter, il n'y faut rien changer; ce ne seroit plus ni version, ni traduction; ce seroit un commentaire (16: 511).

Leaving only a narrow passage for the translator, lest he create a *version*, or a *commentaire*, this statement contributes to the characterization of the ideal, but elusive, successful translation.

Overall, the entry "Traduction" highlights the interrelationship among the different degrees of translation, making allusion to «la construction analytique, qui est le fondement de la version, & conséquemment de la traduction» (16: 511).

The compilers themselves do not acknowledge the link between encyclopedia compilation and translation; in this sense, their comments on translation are not intended to be self-reflective. Yet having established the ideals shared by both processes, these commentaries can be seen as unwitting examples of the compiler's views of transfer of information, and therefore highlight how the encyclopedia may communicate information beyond that intended by the compiler.

In this chapter, we have seen how the allegory of Babel as a way of understanding translation also applies to the encyclopedic process. Just as translation is both legitimized and forbidden by the events of Babel, so the encyclopedia is made necessary and impossible by the concept of universal knowledge, the quest for which forms the principal goal of the encyclopedic project as a whole.

We have also considered the commentary on Babel and translation as outlined in the encyclopedias themselves. This examination sets the foundation for the more in depth analysis of the cyclical and self-perpetuating structure of encyclopedia, knowledge, and public as suggested within the prefatory material and the entries of the compilations in this question, to be discussed in the following chapter.

Chapter 7. In-text Reflexivity: Encyclopedia, Knowledge, and Public

Over the course of this thesis, we have considered the structure of the relationship among encyclopedia, knowledge, and public. The circularity of this relationship and therefore the self-perpetuation of the system, as well as the tension of necessity and impossibility that characterizes the encyclopedic process is informed by the double agency of the compiler as giver and receiver of information, and specifically by the complexity of his membership within the public.

In considering the complexities of the encyclopedic process, we have previously adopted a perspective that is largely and necessarily external with respect to the compilations considered in this study. In order to fully explore the circularity of the process, however, an investigation of how the compilers themselves invoke the relationship of encyclopedia, knowledge, and the public is essential.

In the previous chapter, we saw how the content of the compilers' discussions of Babel reinforced the paradox of necessity and impossibility that characterizes the Babelian context and how, on a different plane, the commentary itself works as an example of the paradox, as the compiler faces the challenge of describing that which he is a part of and thereby compromises the universality of his project.

Similarly, the comments found within the compilations about the encyclopedia emphasize this paradox, serving as concrete examples of the

compiler's inability to escape his context in order to describe it. This is especially true in the case of entries on the topic of the encyclopedia. Here the reflexivity that characterizes the encyclopedic project as a whole is at its height, with the compiler communicating how he transmits knowledge to a given public. These entries represent the ultimate challenge to universality in the encyclopedic context: the compiler's definition of an encyclopedia is actually the definition of only one encyclopedia (his own). Here a highly personal point of view stands in for what is supposed to be a universal definition.

Our previous examination of the concept of Babel as represented within the encyclopedias is expanded in this chapter to provide a more targeted commentary on the compilers' expressions of the structure of the encyclopedia, knowledge, and public.

From a hierarchical perspective, an entry on the encyclopedia places the encyclopedia on the same plane as other definitions in the compilation, although as a concept it is meant to encompass them. Interestingly, this forms a parallel with the role of the compiler with respect to the public: in one sense he is on the same plane, as he is inescapably a member of the same public that he addresses, yet he also stands apart, with the view of informing and educating this public.

In addition to the entries, the prefatory material of the texts provides an important point of entry into the question of the encyclopedia's relationship with knowledge and public. As Chambers notes, "The Preface is a kind of Comment on the Title, the Book a Paraphrase on it: Or, if you had rather, the Book is the Title *executed*, the Preface the Title *explain'd*" (1: xx). In the preface, the line that

divides the compiler's two roles is blurred. On one hand, the compiler makes a direct reference to the public, which is implicitly separate from him, and therefore acknowledges his role as giver of information, set apart from the public that he addresses. On the other hand, because the preface often alludes to the compiler's personal circumstances in creating the encyclopedia and may include specific mention of his influences, it can be seen to reinforce the compiler's role as a member of the public. It is an *hors d'oeuvre*: located outside the structure of the encyclopedia proper, the preface may contribute to establishing a complicity between the compiler and his readers, thereby obscuring the boundaries that divide them.

The compilers' expressions of the connections among encyclopedia, knowledge, and public are inferred principally from their comments on the functions of the encyclopedia, found in entries on the topic ("Cyclopædia" and "Encyclopædia" in the *Cyclopaedia*; "Encyclopédie" in the *Encyclopédie*, and "Cyclopaedia" and "Dictionary" in the *Encyclopaedia Britannica*) and in the prefatory material of each compilation. In the case of the *Cyclopaedia* and the *Britannica*, the prefatory material and the entries are considered to be the work of Chambers and Smellie respectively. In the case of the *Encyclopédie*, the preface is written by D'Alembert, with a substantial excerpt adapted from the original prospectus by Diderot. The entry for "Encyclopédie" within this work is also written by Diderot, which may attest to its importance in the eyes of the principal compiler.

Chambers defines an encyclopedia as “the Circle, or Chain, of all Sciences and Arts” (1: 307), and further notes, “The *Greeks* used the Term for the Knowledge of the seven liberal Arts, and the Possession of all Sciences” (1: 307). This definition underscores his own project: the *Cyclopaedia* is subtitled, “An Universal Dictionary,” and is listed on its title page as being “intended as a Course of Antient and Modern Learning.” Here Chambers capitalizes on the encyclopedia as not only universal but also pedagogical, and by extension, didactic. This is highlighted in the dedication, in which the compiler notes that it is by the arts and sciences that “the Mind is reclaim’d from its native Wildness; and enrich’d with Sentiments which lead to Virtue and Glory. ‘Tis these, in fine, that make the Difference between your Majesty’s Subjects, and the Savages of Canada, or the Cape of Good Hope” (*Dedication*).

Chambers’s allusion to the encyclopedia as a pedagogic tool relates to the historical function of the encyclopedia,⁷⁷ which in and of itself implies the complex relationship between public and compiler. As the giver of moralistic information, the compiler is set apart from the public; it is his duty to inform, to impart the enormity of the information to the reader, and, by implication, to select the information that is most relevant, proper, and useful. It is interesting that as a caveat, Chambers later notes of the difference between science and art that “There is no such thing, properly speaking, as studying an Art, or learning a Science: The

⁷⁷ See Chapter 1.

first, every Man beside the Inventor must be taught; the latter, every Man must find" (1: vii).

The public is itself invoked by Chambers as he notes at the closing of his dedication,

The Work I here presume to lay at Your Majesty's Feet is an Attempt towards a Survey of the Republick of Learning, as it stands at the Beginning of Your Majesty's auspicious Reign. We have here the Boundary that circumscribes our present Prospect; and separates the known, from the unknown Parts of the Intelligible World. Under Your Majesty's Princely Influence and Encouragement, we promise our selves this Boundary will be removed, and the Prospect extended far into the other Hemisphere. Methinks I see Trophies erecting to Your Majesty in the yet undiscover'd Regions of Science; and Your Majesty's Name inscribed to Inventions at present held impossible! (*Dedication*).

The notion of a complete survey implies the goal of universality, which is further taken up by Chambers in his comment that his dictionary is the boundary between the known and the unknown. The encyclopedia is here presented as a point of access; by compiling all that is known, and in so doing, making it known to many, further access to all that is yet to be known may be gained. Chambers positions himself as the gatekeeper at this boundary, and in this way comes close to touching on his binary role, yet without acknowledging the impossibility that that implies. He still stands apart from the rest of the public; as with his didactic

role, his privileged access to the information at hand—as the compiler he has been the first to see it in its totality, or at least in the totality that he prescribes—separates him from the masses. His appeal to the monarchy aligns him with the rest of the public, yet in his address to and about members of the public, he maintains a separation from them. Therefore, Chambers does little here to indicate any awareness of his own contextual biases, yet later in his preface this is fully disclosed:

’Tis beyond my Purpose to enter into the Nature of the several Methods of Compositions abovemention’d. I shall only note, by the way, that the first Writers in each, mark’s and chalked out the Measures or all that came after them. The several Manners of composing amount to so many *Arts*; which, we have already shewn, are things in great measure personal, and depend on the genius or Humour of the Inventors (1: xxi).

Despite this apparent acknowledgement of the subjectivity of the compiler, Chambers seems to maintain throughout his prefatory material the possibility of total, and therefore objective, knowledge. Chambers implies that although it may not yet be known, this complete body of knowledge exists *a priori*, and is waiting to be accessed by way of the encyclopedia, a perspective that makes apparent the theoretical goal of universality in the encyclopedia.

Chambers’s universality is also discussed in the context of the map of knowledge included in his prefatory material.

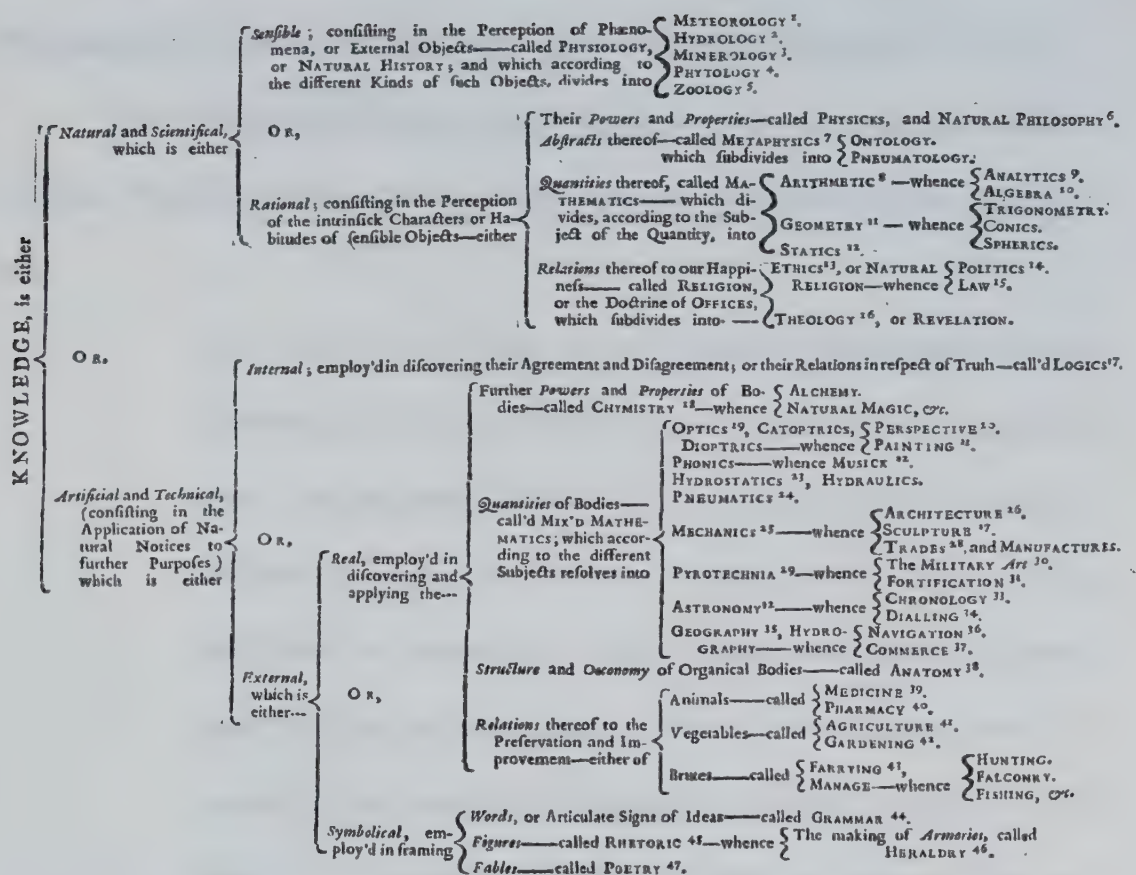


Figure 1. Map of knowledge in the *Cyclopaedia*

Although Chambers admits the impossibility of having a map that could completely characterize the universality of the encyclopedic project, he goes on to note that this is precisely the jurisdiction of the work itself. Of the table, he notes: “This is a View of Knowledge, as it were, *in semine*; exhibiting only the grand, constituent Parts thereof. It would be endless to pursue it into all its Members and Ramifications; which is the proper Business of the Book itself” (1: ii). It is of interest that the organization of knowledge is presented as a key contribution of the encyclopedia. It is specifically through order that knowledge may be accessed: “It may be even said, that if the System be an Improvement upon the Dictionary;

the Dictionary is some Advantage to the System; and that this is perhaps the only Way wherein the whole Circle of Body of Knowledge can be deliver'd" (1: i).

The interconnection between knowledge and the encyclopedia is largely assumed within the preface, but is made explicit by Chambers in the comment that,

To consider Knowledge in its Principles, antecedent to such Intervention of ours; and even pursue it up to its Cause, and shew how it exists there, before it be Knowledge; And to trace the Progress of the Mind thro' the Whole, and the Order of the Modifications induced by it. This is a Desideratum, hitherto scarce attempted; but which we could not here decline entering upon, on account of its immediate Relation to the present Design. 'Tis the Basis of all Learning in general; the great, but obscure Hinge, on which the whole Encyclopædia turns (1: iv-v).

This comment summarizes the function of the encyclopedia as the way by which knowledge can be organized. Additionally, the universality of knowledge is taken for granted, as any organization necessarily implies being able to account for a totality of some kind.

Although there is no acknowledgement of the paradox of necessity and impossibility that characterizes the encyclopedic process, it can be inferred from Chambers's ambivalence on the topic of universality that is implied in his commentary. Despite statements that suggest that total knowledge is not only possible, but indeed the goal of the encyclopedia, Chambers does allow for

pocketed universality; that is, universality in limited areas, as expressed by Chambers's partially borrowed definition of a dictionary:

"It is a Collection of Definitions of the Words of a Language."—
Whence, according to the different kinds of Words and Definitions
above laid down, *i.e.* according to the different Matter, and the
different View wherein such Matter is considered, will arise
different sorts of Dictionaries: Grammatical, as the common
Dictionaries of Languages, which for one Word substitute another
of equal import, but more obvious sense: Philosophical, which give
the general Force or Effect of the Words, or what is common to
'em in all the Occasions where they occur: and Technical, which
give the particular Sense attach'd to 'em in some one or more Arts
(1: xxi).

Therefore, according to Chambers it is possible to have a project that is in
some way limited, yet from the implications throughout his preface on the
possibility of universality, it can be assumed that universality within the given
area remains the goal of the encyclopedia. Chambers does recognize, however,
the ultimate impossibility of separating different areas of focus, noting:

But, in truth, this is a little chimerical; and is to forget what has
been already said. Tho we have *Dictionaries* under all these Titles;
it would perhaps be hard to find any conformable to this Partition;
which is not so much taken from what really is, as what might, or
should be. Dictionarists are far from considering their Subject so

closely, or confining themselves to so narrow, tho direct, a Channel: They must have more room; and think themselves privileg'd by the general Quality of Lexicographers, to use all kinds of Definitions promiscuously. 'Tis no wonder they should not keep to Views which they had not, and which could only arise from Researches they never made. While the Notions of *Term* and *Art*, remain'd yet in the Rubbish they were left by the Schoolmen; those of *Definition* and *Dictionary* must needs be vague and arbitrary enough; and the Dictionarists and Expositors, profited by an Embarrass it was their Business to have remov'd. They have not only built on it, but improv'd it, by a continual varying and confounding of Views, imperfect Enumerations, &c. (1: xxi).

The ambivalence of Chambers's commentary on universality is intensified in his criticism of dictionaries that are too broad in scope:

But we are far from the Views of some Dictionarists, who think it incumbent on 'em to demonstrate every thing that is capable thereof. This is directly to forget their Quality; to corrupt the Integrity of the Work *mal à propos*; 'tis being licentious, and impertinent at the same time, and dispensing with the Rules to their own cost. How dear, e.g. must a competent Demonstration of most of *Euclid's* Propositions be here purchased? Either the Reader must be at the Pains of picking it piecemeal from out of twenty several parts of the Book, where the Alphabet has happen'd to cast

it; or the Author must relinquish the Advantages of a Dictionary, and deliver things together, that properly belong to so many several places; or there must be a Repetition of the same thing a dozen times over. And for what? why, to make the *Dictionary* do the Business of an *Euclid's Elements*; which it is the unfittest in the World for. You might with equal propriety make an ozier Basket supply the Office of a Pleasure-Boat; or a Sword-pummel that of a Portmanteau, as *Paracelsus* is said to have done (1: xxiii).

Such a comment appears to contradict the fundamental goal of universality that Chambers seems to support. Yet such binary viewpoints are the necessary consequence of a paradoxical situation by which the compiler must contend with—and justify, in his preface—the balance of an exhaustive objective and realistic constraints.

In addition to his implicit and explicit commentary on universality of subject matter of the encyclopedia, Chambers alludes to universality of audience when he notes the importance of language in acquiring knowledge:⁷⁸

Tis, in effect, to Language that we are chiefly indebted for what we call *Science*. By means hereof our Ideas and Notices, tho things in their own nature merely personal, and adapted only to private use; are extended to others, to improve their stock: and thus, by a kind of second Sense, we get Perceptions of the Objects that are perceived by all Mankind; and are present, as it were by proxy, to

⁷⁸ As noted in Chapter 1, the target audience of a work depends on the compiler's individual bias. In fact, the very notion of a target audience is in conflict with the theoretical ideal of universality, which suggests the overlap between the goals of universal scope and audience.

things at all Distances from us: We hear Sounds made a thousand Years ago, and see Things that pass a thousand Miles off. If the Eagle really sees, the Raven smells, and the Hare hears further and better than Man; their Sense, at best, is but narrow, in comparison of ours, which is extended, by the Artifice of Language, over the whole Globe. They see with their own Eyes only; we with those of the whole Species.—In effect, by Language, we are upon much the same footing, in respect of Knowledge, as if each individual had the natural Sense of a thousand: an Accession which alone must have set us far above any other Animals. But at the same time, this very accession of a multitude of Ideas more than naturally belong'd to us, must have been in great measure useless; without certain Faculties of ordering and arranging 'em; of abstracting, or making one a Representative of a Number; of comparing 'em together, in order to learn their Relations; and of compounding, combining 'em, &c. to make 'em act jointly. The Effect hereof is what we call *Discoursing* and *Philosophizing*: And hence arise *Doctrines, Theories, &c.* (1: vi).

While encyclopedias are practically restricted in their audience to those members of the public who are literate, an extension to this readership can be inferred from Chambers's quote. In Chambers's view, language is the vehicle by which information is transmitted; while written language may be the medium by which scholarly research is communicated over wide distances, this view also

allows for the casual communication of concepts by verbal means. In this way, the encyclopedia can be seen not only in the context of knowledge in general, but particularly as a means of preserving, communicating, reinforcing, and therefore creating common knowledge. What makes knowledge common knowledge is precisely its far reach in terms of audience. It is through language, notes Chambers, that knowledge is transmitted to an ever-closer-to-universal audience, which implies the connection between knowledge and public that rests on the cycle of sharing of information, and the subsequent absorption and transformation of this information into knowledge that proliferates:

We have shewn whence all our Knowledge originally rises: that Sensation is its only Source; that what comes this way, comes by the Agency of the Divine Being: that it is further modified in the Memory or Imagination, where new Assemblages are frequently made, which is called *Invention*; that it is continually altering, by the Admission of new Ideas from without; but still remains subject to the Laws imposed by the Creator, so that nothing happens therein, but in consequence of such Laws (1: xv).

Within this system, the encyclopedia is one pathway by which the communication, and, in Chamber's view, the organization of knowledge takes place. Therefore, Chambers's view accounts for the encyclopedia's critical role in a perpetuating system that also involves knowledge and the public: "Eternal Objects strike the Sense and Imagination so strongly; that they reach to Reason; which, like an infinitely elastick Substance, reflects 'em back again; and thus they

again grow into Objects of Sense: and so in a circle” (1: xvi). This is just one example of how the circular structure implied by the word *encyclopedia* extends beyond the concept of a circle of learning or a “Compass of Words” (Chambers 1: 365); not only does the encyclopedia encircle, but it also forms a point on a circular conceptual structure. Just as there are an infinite number of points on a circle, so too can knowledge be subdivided into ever-more-minute sub-concepts:

The Business of Knowledge, then, is canton'd out among the Body of Words: but they don't bear equal Shares thereof. Being Creatures of our own, we have dealt with 'em accordingly; and made some more, others less significant, at pleasure: some stand for large Tracts, or Provinces; others for little Spots, or petty Districts thereof. In effect, the Order wherein we attain our Knowledge, has occasion'd us to make a kind of Sortment and Package, if I may use the Word, in the matter thereof. Tho the Mind only sees and perceives Individuals, which alone are the proper Objects thereof; yet it has a Power of combining and complicating these together, for its own conveniency: And hence its progress from Particulars to Generals; from Simple, to Complex.—Hence we come to have Words of all Orders, and Degrees; from the Simplicity of an Atom, to the Complexness of the Universe (1: xviii).

Chambers notes in his preface, “'tis very few of our Words that express single, or simple Ideas” (1: xviii); taken in the context of the encyclopedia, this is

also true of entries. Nearly every encyclopedia entry, by its implied assumptions upon which other concepts rest, is connected to several points within the encyclopedia, and therefore cannot be deconstructed from the total. This infinity is alluded to by Chambers in his discussion of terms, in which he notes that for true completeness and clarity, all terms within a definition would have to be defined:

But as this would be endless, and would defeat the Intention of a Definition; the Practice obtains, to suppose all other Terms known, except that particular one under Definition. By this means, we avoid the Embarrass of bringing down every Word to its Principles, or simple Ideas; and acquit our selves by bringing it to the next complex ones: Since the bringing an unknown Term to several known ones, is a kind of indirect Definition (1: xx).

Here, Chambers implicitly acknowledges the backward spiraling structure characterizing the encyclopedic process in which he participates—there is no beginning and no end to the interplay of encyclopedia, knowledge, and public, as each is informed by and influences the other simultaneously and over time. The movement among these three concepts takes place both synchronically and diachronically. In fact, Chambers himself contemplates the first compiler:

Were we to inquire who first led up the way of *Dictionaries*, of late so much frequented; some little Grammarian, would, probably, be found at the head thereof: And from his particular Views, Designs, &c. if known, one might probably deduce, not only the general

Form, but even the particular Circumstances of the modern Productions under that Name. The Relation, however, extends both ways; and if we can't deduce the Nature of a Dictionary from the Condition of the Author; we may the Condition of the Author from the Nature of the Dictionary. Thus much, at least, we may say, that he was an Analyst; that his View was not to improve or advance Knowledge, but to teach, or convey it; and that he was hence led to untie the Complexions or Bundles of Ideas his Predecessors had made, and reduce 'em to their natural parity; which is all that is essential to a dictionarist. Probably this was in the early Days of the *Phœnician* or *Egyptian* Sages, when Words were more complex and obscure than now; and mystic Symbols and Hieroglyphics obtain'd; so that an Explication of their Marks or Words, might amount to a Revelation of their whole inner Philosophy: In which Case, instead of a Grammarian, we must put perhaps a *Magus*, a *Mystes*, or *Brachman* at the head of Dictionaries. Indeed this seems the more probable; for that a grammatical Dictionary could only have place, where a Language was already become very copious, and many Synonyma's got into it; or where the People of one Language were desirous to learn that of another: which we have no reason to think could be very early, till much Commerce and Communication had made it necessary (xxi).

In making these comments, Chambers raises interesting questions as to the role of the encyclopedia and dictionary with respect to knowledge. Although he states that the first lexicographer must not have had the view to improve or advance knowledge, this seems to contradict the statements made by Chambers in the dedication. It was suggested in the dedication that by providing access to information, knowledge is improved. Therefore, can it be that any compiler or lexicographer can be merely “an Analyst”? The very communication of ideas implies a deliberate—if subconscious—urge for improvement. At the very least, it changes the public to which it addresses by providing it with new knowledge; at most, it invites the development and augmentation of this body of knowledge by any of the many members of the public to whom it is communicated. Yet, as Chambers argues, it is not merely the transmission of information by which knowledge is acquired; this process involves the cooperation of the compiler and the public to which the material is addressed. This serves as a reminder of the importance of public involvement in a successful encyclopedic project, and serves to reinforce the reciprocity of the system of encyclopedia, knowledge, and public:

To conclude, the ultimate View of a Work of this, or any other kind, should be, the forming a sound Mind, i.e. a System of Perceptions, and Notions agreeing to the System of Things, or in the Relation thereto, intended by its Author. The End of Learning and Study, is not the filling our Heads with other Mens Ideas; that is an Inrichment which may prove for the worse, if it carry any ill Quality with it: Richness is not the chief thing aim'd at; 'tis only a

Circumstance, or Matter of a secondary Consideration: Soundness is the first (1: xxx).

Encyclopédie

In the entry “Encyclopédie,” the stated goal of such a work is as follows:

En effet, le but d’une *Encyclopédie* est de rassembler les connoissances éparses sur la surface de la terre, d’en exposer le système général aux hommes avec qui nous vivons, & de le transmettre aux hommes qui viendront après nous; afin que les travaux des siècles passés n’aient pas été des travaux inutiles pour les siècles qui succéderont; que nos neveux, devenant plus instruits, deviennent en même tems plus vertueux & plus heureux, & que nous ne mourions pas sans avoir bien mérité du genre humain (5: 635).

This definition takes into account the important relationship that exists among encyclopedia, knowledge, and public, and further points to the universal goal of the encyclopedia. In this compilation, however, the comments on universality suggest ambivalence; which may in and of itself attest to the paradox of a universal goal paired with the impossibility of it ever being attained.

In the preface, the encyclopedic organization of knowledge is presented as distinct from knowledge systems in general:

Enfin le système de nos connoissances est composé de différentes branches, dont plusieurs ont un même point de réunion; & comme en partant de ce point il n'est pas possible de s'engager à la fois dans toutes les routes, c'est la nature des différens esprits qui détermine le choix. Aussi est-il assez rare qu'un même esprit en parcourre à la fois un grand nombre. Dans l'étude de la Nature, les hommes se sont d'abord appliqués tous, comme de concert, à satisfaire les besoins les plus pressans; mais quand ils en sont venus aux connoissances moins absolument nécessaires; ils ont dû se les partager, & y avancer chacun de son côté à-peu-près d'un pas égal. Ainsi plusieurs Sciences ont été, pour ainsi dire, contemporaines; mais dans l'ordre historique des progrès de l'esprit, on ne peut les embrasser que successivement.

Il n'en est pas de même de l'ordre encyclopédique de nos connoissances. Ce dernier consiste à les rassembler dans le plus petit espace possible, & à les placer, pour ainsi dire, le Philosophe au-dessus de ce vaste labyrinthe dans un point de vûe fort élevé d'où il puisse appercevoir à la fois les Sciences & les Arts principaux; voir d'un coup d'œil les objets de ses spéculations, & les opérations qu'il peut faire sur ces objets; distinguer les branches générales des connoissances humaines, les points qui les séparent ou qui les unissent; & entrevoir même quelquefois les routes secretes qui les rapprochent. C'est une espece de

Mappemonde qui doit montrer les principaux pays, leur position & leur dépendance mutuelle, le chemin en ligne droite qu'il y a de l'un à l'autre; chemin souvent coupé par mille obstacles, qui ne peuvent être connus dans chaque pays que des habitans ou des voyageurs, & qui ne sauroient être montrés que dans des cartes particulieres fort détaillées. Ces cartes particulieres seront les différens articles de l'Encyclopédie, & l'arbre ou système figuré en sera la Mappemonde (1: xv).

The very notion of a «mappemonde» connotes universality, and the idea of accounting for all things in the world. In the *Encyclopédie*, there is a particular emphasis on universality as related to history. The *Encyclopédistes* emphasize the place of their work in a historical context, as evidenced by the above quote, and make several references to its value for future generations. In particular, the authors also see their work as a necessity that will eventually become more difficult to accomplish:

Nous avons donc entrepris aujourd'hui pour le bien des Lettres, & par intérêt pour le genre humain, un Ouvrage auquel nos neveux auroient été forcés de se livrer, mais dans des circonstances beaucoup moins favorables; lorsque la surabondance des livres leur en auroit rendu l'exécution très pénible (5: 644+).

* SYSTÈME FIGURÉ DES CONNOISSANCES HUMAINES.

ENTENDEMENT.

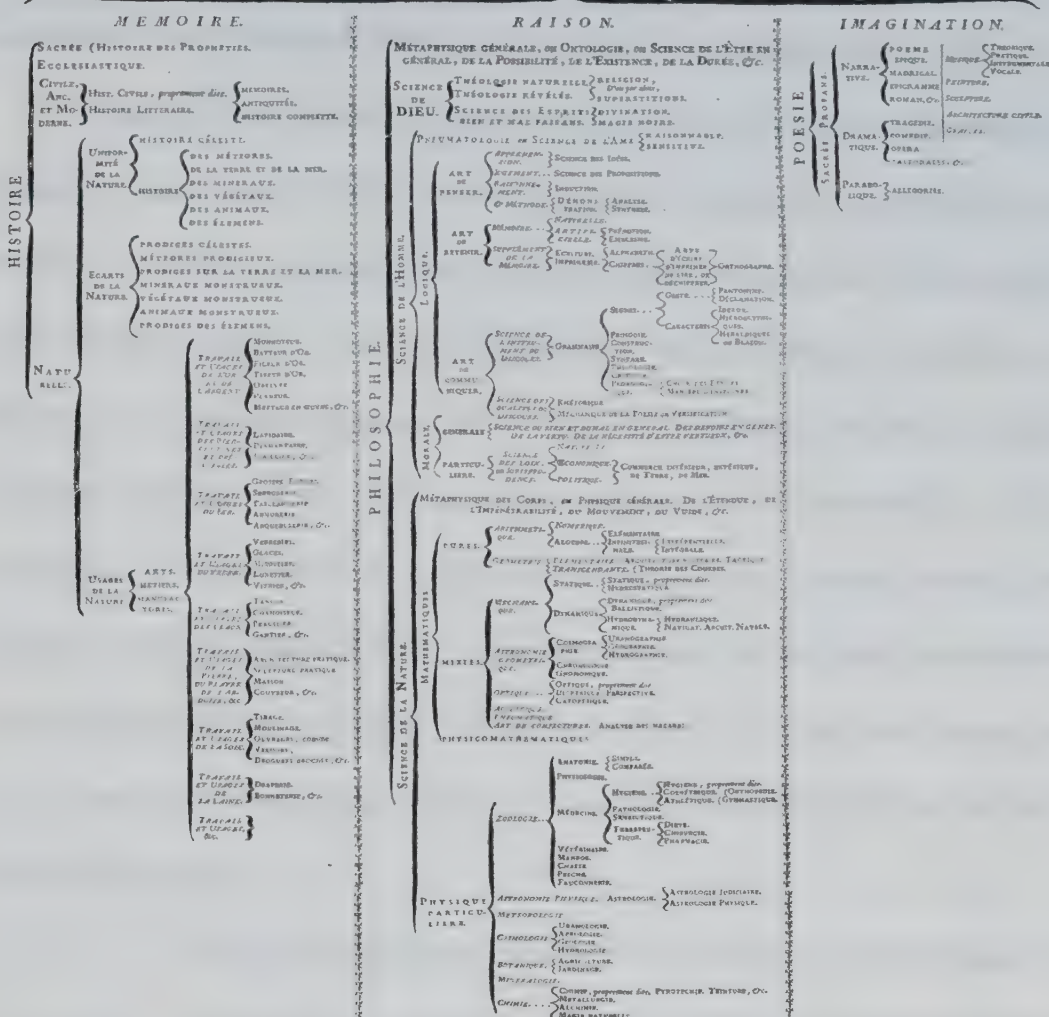


Figure 2. Map of knowledge in the *Encyclopédie*

This comment is particularly interesting from the perspective of the impossible ideal of universality; the implication is that as information grows, it will become so difficult to catalogue as to render it nearly inaccessible. By extension, universality betrays itself, as an overabundance of content prohibits readership.

In addition, the *Encyclopédie* can be seen in this context as a conscious contribution to universality over time. It is noted in the preface «nous sommes

persuadés que la perfection dernière d'une Encyclopédie est l'ouvrage des siècles. Il a fallu des siècles pour commencer; il en faudra pour finir: mais nous serons satisfaits d'avoir contribué à jeter les fondemens d'un Ouvrage utile» (1: xl).

Here the compilation is offered as a piece—a *fragment*—in the project of complete knowledge.⁷⁹ This is further suggested in the prefatory material, in which it is stated, «On peut donc imaginer autant de systèmes différens de la connoissance humaine, que de Mappemondes de différentes projections; & chacun de ces systèmes pourra même avoir, à l'exclusion des autres, quelque avantage particulier» (1: xv). It is here suggested that universality can be contained, or restricted to one particular arena. Yet the overlap among these arenas—be they defined by time, place, area of study, or any other parameter—make this impossible. In fact, the very notion of the *Encyclopédistes'* conception of the *mappemonde* as outlined in the the article “Encyclopédie” is decidedly immense in scope:

l'ordre encyclopédique général sera comme une mappemonde où l'on ne rencontrera que les grandes régions; les ordres particuliers, comme des cartes particulieres de royaumes, de provinces, de contrées; le dictionnaire, comme l'histoire géographique & détaillée de tous les lieux, la topographie générale & raisonnée de ce que nous connoissons dans le monde intelligible & dans le monde visible; & les renvois serviront d'itinéraires dans ces deux mondes, dont le visible peut être regardé comme l'Ancien, & l'intelligible comme le Nouveau (5: 641+).

⁷⁹ See Chapter 6.

This geographical representation of the encyclopedia is taken up again later in the entry, in a metaphor that further highlights the implied universality that characterizes the encyclopedic goal:

Il faut considérer un dictionnaire universel des Sciences & des Arts, comme une campagne immense couverte de montagnes, de plaines, de rochers, d'eaux, de forêts, d'animaux, & de tous les objets qui font la variété d'un grand paysage. La lumière du ciel les éclaire tous; mais ils en sont tous frappés diversement. Les uns s'avancent par leur nature & leur exposition, jusque sur le devant de la scène; d'autres sont distribués sur une infinité de plans intermédiaires; il y en a qui se perdent dans le lointain; tous se font valoir réciproquement (5: 647+).

In one sense, then, the *Encyclopédistes'* conception of knowledge as described by the encyclopedia is limitless; yet in another sense there is a recognition of the constraints of time, as well as other factors, as challenges to this universality.

In situating the encyclopedia as a historical document, the authors imply an interaction of their compilation with generations of the future, transmitting information about the state of knowledge in the *Encyclopédistes'* time. In other words, the perpetuation of the encyclopedic system with respect to knowledge and public is not only implied, but deliberately intended:

Le Sciences & les Beaux-Arts ne peuvent donc trop concourir à illustrer par leurs productions le règne d'un Souverain qui les

favorise. Pour nous, spectateurs de leurs progrès & leurs historiens, nous nous occuperons seulement à les transmettre à la postérité. Qu'elle dise à l'ouverture de notre Dictionnaire, tel étoit alors l'état des Sciences & des Beaux-Arts. Qu'elle ajoute ses découvertes à celles que nous aurons enregistrées, & que l'histoire de l'esprit humain & de ses productions aille d'âge en âge jusqu'aux siècles les plus reculés (1: xxxviiij).

In addition to the public of the future, the contemporary public is directly invoked in commentary within the *Encyclopédie*. It is of interest that within the preface, this public is addressed consistently as «le Public», and is addressed as the target audience of both the preface and the encyclopedia itself. The public addressed is fairly general in scope, as it is noted in the entry “Encyclopédie,” «l’homme du peuple & le savant auront toujours également à desirer & à s’instruire dans une *Encyclopédie*» (5: 637), and more generally, «Il faut se garantir singulierement de l’obscurité, & se ressouvenir à chaque ligne qu’un dictionnaire est fait pour tout le monde, & que la répétition des mots qui offenseroit dans un ouvrage leger, devient un caractere de simplicité qui ne déplaira jamais dans un grand ouvrage» (5: 648).

The public is also invoked as the rightful judge of the work; «Après avoir traité de la matiere *Encyclopédique* en général, on desireroit sans-doute que nous entrassions dans l’examen de chacune de ses parties en particulier; mais c’est au public, & non pas à nous, qu’il appartient de juger du travail de nos collegues & du nôtre» (5: 646+). This sentiment is repeated throughout the preface of the

Encyclopédie, and is in fact expressed in the closing lines of the preface, albeit with an interesting caveat: «Nous ne chercherons point à comparer ce Dictionnaire aux autres; nous reconnoissons avec plaisir qu'ils nous ont été utiles, & notre travail ne consiste point à décrier celui de personne. C'est au Public qui lit à nous juger: nous croyons devoir le distinguer de celui qui parle» (1: xiv). This statement may be understood as the authors imploring any critics to read the work before judging it; however it could also be seen in the context of a more deliberately limited (literate) target audience.

Offering an interesting point of self-reflection, the authors also identify themselves as critical judges of their work:

En détaillant ainsi comment une véritable *Encyclopédie* doit être faite, nous établissons des regles bien séveres, pour examiner & juger celle que nous publions. Quelqu'usage qu'on fasse de ces regles, ou pour ou contre nous, elles prouveront du moins que personne n'étoit plus en état que les auteurs de critiquer leur ouvrage. Reste à savoir si nos ennemis, après avoir donné jusqu'à présent d'assez fortes preuves d'ignorance, ne se résoudront pas à en donner de lâcheté, en nous attaquant avec des armes que nous n'aurons pas craint de leur mettre à la main (5: 643+).

The public is also implicitly invoked in the authors' comments on their motivation for the compilation. In some of these statements, there is a direct expression of the educational intentions of the compilers:

Mais s'il est facile à un dictionnaire d'être bien écrit, il n'est guere d'ouvrages auxquels il soit plus essentiel de l'être. Plus une route doit être longue, plus il seroit à souhaiter qu'elle fût agréable. Au reste, nous avons quelque raison de croire que nous ne sommes pas restés de ce côté sans succès. Il y a des personnes qui ont lû l'*Encyclopédie* d'un bout à l'autre; & si l'on en excepte le dictionnaire de Bayle qui perd tous les jours un peu de cette prérogative, il n'y a guere que le nôtre qui en ait jouï & qui en jouisse. Nous souhaitons qu'il la conserve peu, parce que nous aimons plus les progrès de l'esprit humain que la durée de nos productions, & que nous aurions réussi bien au-delà de nos espérances, si nous avions rendu les connoissances si populaires, qu'il fallût au commun des hommes un ouvrage plus fort que l'*Encyclopédie*, pour les attacher & les instruire (5: 648).

This education of *Encyclopédie* readers extends beyond merely providing information, and is moralistic in its target: «Comme il est au moins aussi important de rendre les hommes meilleurs, que de les rendre moins ignorans, je ne serois pas fâché qu'on recueillît tous les traits frappans des vertus morales» (645b). The *Encyclopédie* itself is aimed at evoking the moral virtues prized by the authors:

Si toutefois il y a quelqu'ouvrage qui comporte de la variété dans le style, c'est une *Encyclopédie*; mais comme j'ai désiré que les objets les plus indifférens y fussent toujours secrettement rapportés

à l'homme, y prissent un tour moral, respirassent la décence, la dignité, la sensibilité, l'élévation de l'ame, en un mot qu'on y discernât par-tout le souffle de l'honnêteté; je voudrois aussi que le ton répondît à ces vûes, & qu'il en reçût quelque austérité, même dans les endroits où les couleurs les plus brillantes & les plus gaies n'auroient pas été déplacées. C'est manquer son but, que d'amuser & de plaire, quand on peut instruire & toucher (5: 647+).

Later in the same entry, Diderot writes, «C'est manquer son but, que d'amuser & de plaire, quant on peut instruire & toucher» (5: 647-648). As Kafker notes, "Diderot and d'Alembert [...] did not content themselves with creating an outstanding reference work. Their ideal was to be *engagé*, not to resemble dispassionate, 'objective' scholars. They were committed to trying to change people's beliefs and society's ways" (1981 232). This is accomplished in part through subversive means; of the first volume of the *Encyclopédie*, for example, Blom notes,

Hidden between the straightforward and sometimes even dull articles, not all of them very distinguished and not all of them accurate, were wild and highly personal polemical escapades, while other texts quietly aimed to convince the reader of something he or she had not opened the book to be convinced about (90-91).

The organization and hierarchy of different senses of one same headword as well as the use of cross-references to imply connections among subjects also contribute to promoting the *Encyclopédistes'* political views:

Les renvois de choses éclaircissent l'objet, indiquent ses liaisons prochaines avec ceux qui le touchent immédiatement, & ses liaisons éloignées avec d'autres qu'on en croiroit isolés; rappellent les notions communes & les principes analogues; fortifient les conséquences; entrelacent la branche au tronc, & donnent au tout cette unité si favorable à l'établissement de la vérité & à la persuasion. Mais quand il le faudra, ils produiront aussi un effet tout contraire; ils opposeront les notions; ils feront contraster les principes; ils attaqueront, ébranleront, renverseront secretement quelques opinions ridicules qu'on n'oseroit insulter ouvertement. Si l'auteur est impartial, ils auront toujours la double fonction de confirmer & de réfuter; de troubler & de concilier.

Il y auroit un grand art & un avantage infini dans ces derniers renvois. L'ouvrage entier en recevroit une force interne & une utilité secrete, dont les effets sourds seroient nécessairement sensibles avec le tems. Toutes les fois, par exemple, qu'un préjugé national mériteroit du respect, il faudroit à son article particulier l'exposer respectueusement, & avec tout son cortège de vraisemblance & de séduction; mais renverser l'édifice de fange, dissiper un vain amas de poussiere, en renvoyant aux articles où des principes solides servent de base aux vérités opposées. Cette maniere de détromper les hommes opere très-promtement sur les bons esprits, & elle opere infailliblement & sans aucune fâcheuse

conséquence, secretement & sans éclat, sur tous les esprits. C'est l'art de déduire tacitement les conséquences les plus fortes. Si ces renvois de confirmation & de réfutation sont prévus de loin, & préparés avec adresse, ils donneront à une *Encyclopédie* le caractere que doit avoir un bon dictionnaire; ce caractere est de changer la façon commune de penser. L'ouvrage qui produira ce grand effet général, aura des défauts d'exécution; j'y consens. Mais le plan & le fond en seront excellens. L'ouvrage qui n'opérera rien de pareil, sera mauvais. Quelque bien qu'on en puisse dire d'ailleurs; l'éloge passera, & l'ouvrage tombera dans l'oubli (5: 642-643).⁸⁰

The responsibility of moral instruction as expressed in certain passages, in addition to the other invocations of the public throughout the preface and the entry “*Encyclopédie*” serve, whether deliberately or not, to separate the *Encyclopédistes* from the general public. In some cases, the public is referred to in a tone of reverence as the ultimate judge of the work; in others, the public is a group requiring moral and intellectual direction. In the context of either of these situations, though, the public is other, a state that is of course impossible and in fact contradicted by the very format of the *Encyclopédie* itself. Because of its collaborative structure, this compilation can be seen as yet more of a “public” endeavour than other compilations; the total group of *Encyclopédistes* prevents the work from being “private” or personal. Yet the division between this smaller public and the greater public is asserted in the preface:

⁸⁰ See Blom (154).

Nous avons inféré de-là que pour soutenir un poids aussi grand que celui que nous avions à porter, il étoit nécessaire de le partager; & sur le champ nous avons jetté les yeux sur un nombre suffisant de Savans & d'Artistes; d'Artistes habiles & connus par leurs talens; de Savans exercés dans les genres particuliers qu'on avoit à confier à leur travail. Nous avons distribué à chacun la partie qui lui convenoit; quelques-uns même étoient en possession de la laur, avant que nous nous chargeassions de cet Ouvrage. Le Public verra bientôt leurs noms, & nous ne craignons point qu'il nous les reproche. Ainsi, chacun n'ayant été occupé que de ce qu'il entendoit, a été en état de juger sainement de ce qu'en ont écrit les Anciens & les Modernes, & d'ajouter aux secours qu'il en a tirés, des connoissances puisées dans son propre fonds. Personne ne s'est avancé sur le terrain d'autrui, & ne s'est mêlé de ce qu'il n'a peut-être jamais appris; & nous avons eu plus de méthode, de certitude, d'étendue, & de détails qu'il ne peut y en avoir dans la plûpart des Lexicographes. Il est vrai que ce plan a réduit le mérite d'Editeur à peu de chose; mais il a beaucoup ajouté à la perfection de l'Ouvrage; & nous avons réuni tous ces Dictionnaires ensemble (1: xxxv-xxxvj).

Overall, the relationship between encyclopedia, knowledge, and public is discussed within the commentary of the *Encyclopédie*. In particular, the paradox of the encyclopedia with respect to universality is implied in the authors'

ambivalent expressions of this goal, as either boundless or limited to a certain time period and, by extension, contributing to a larger project of total knowledge to benefit future generations. In a way, these shifting perspectives can be seen as the truest representation of the encyclopedic state, and the most acute self-reflection on the task at hand.

Encyclopaedia Britannica

The definition of an encyclopedia in the *Encyclopaedia Britannica* can be found principally under the headword for “Cyclopaedia,” a term that “denotes the circle or compass of arts and sciences. A cyclopædia, say the authors of the French Encyclopædia, ought to explain, as much as possible, the order and connection of human knowledge” (2: 301). In this definition, as in the headword itself, the concept of the circle is invoked; in fact, the first part of the definition is a near transcription of Chambers’s definition of an encyclopedia. This chain of influence that exists points to the indivisibility of influence within the encyclopedic process, and therefore to the binary role of the compiler as a non-member and a member of the public, as giver and receiver of information. Furthermore, the notion of universality is implied, as human knowledge is presented as a single entity to be organized and explained.

This reliance on outside sources which is germane to the encyclopedic process is mentioned explicitly in the preface, where the existing sources of which

the compilers⁸¹ have made use are alluded to: “Not to mention original articles, they have had recourse to the best books upon almost every subject, extracted the useful parts, and rejected whatever appeared trifling or less interesting” (1: v). It is understood that the contribution of the compilers is that “they have digested the principles of every science in the form of systems or distinct treatises” (1: v). Yet just as it is impossible in the context of the encyclopedia to properly separate and therefore identify any of the multiple influences operating on a given compiler, so too is categorizing the subject matter of the encyclopedia into discrete parts unachievable. According to Smellie,

in a work of this kind, it was almost impossible, without many unnecessary repetitions, to treat [individual concepts such as sciences] as distinct sciences. Indeed, properly speaking, they are not sciences, but parts or accessories of sciences, which, by the dexterity of teachers and authors, have been long exhibited under that form (1: vi).

Smellie reiterates this point in his criticism of the works of his predecessors, which is largely based on their treatment of the sciences in alphabetical order:

Whoever has had occasion to consult Chambers, Owen, &c. or even the voluminous French *Encyclopedie*, will have discovered the folly of attempting to communicate science under the various technical terms arranged in an alphabetical order. Such an attempt is repugnant to the very idea of science, which is a connected series of conclusions deduced from self-evident or previously

⁸¹ See Chapter 4 for details on the authorship of the *Britannica*.

discovered principles. It is well if a man be capable of comprehending the principles and relations of the different parts of science, when laid before him in one uninterrupted chain. But where is the man who can learn the principles of any science from a Dictionary compiled upon the plan hitherto adopted? (1: v).

According to Smellie, “Utility ought to be the principal intention of every publication. Wherever this intention does not plainly appear, neither the books nor their authors have the smallest claim to the approbation of mankind” (1: v). With respect to his own compilation, Smellie shares in the encyclopedic tradition, noting that “To diffuse the knowledge of Science, is the professed design of the following work” (1: v).

* * *

In the discussion of the general concept of encyclopedia and the specific cases of the *Cyclopaedia*, the *Encyclopédie*, and the *Britannica* that takes place within the prefaces and the entries of the compilations in this study, the compilers address some of the same broad themes: namely, the difficulty of subdividing knowledge, and the problems that this poses for encyclopedic organization; the importance of the public either as critic or audience, and universality as a driving force of the project. Although the *Britannica* contains relatively little discussion of these topics due to the minimal length of its entries and preface, in both the *Cyclopaedia* and the *Encyclopédie* there is particular allusion to the moralistic

function of the encyclopedia, which contributes to the complexity of the author's role with respect to the public. Additionally, there is evidence of ambivalence on the part of these compilers with respect to the goal of universality, as they account for the inherent subjectivity of compilation and acknowledge the necessity of limiting the scope of compilations, and are yet unwilling to abandon the discourse of totality or completeness of information.

The compiler's remarks point to the interconnection of encyclopedia, knowledge, and public. In their discussion of the complexities inherent in these categories—at times expressed by their seemingly ambivalent standpoints—the compilers express the paradox of their task: despite the graphical representations given in the *Cyclopaedia* and the *Encyclopédie*, knowledge cannot be separated into completely discrete branches. Therefore, each entry must account for the inherent overlap of various contributing fields, implying the impossibility of universality, even within a restricted scope. Yet encyclopedias are necessarily limited, by the fact that they are situated in a given time-space context. The goal may therefore be seen as one of universality in a broader context, with a given encyclopedia serving as a record in time, as expressed by the *Encyclopédistes*. This historical project implies the public of the future, underscoring the impossibility of date stamping the effects of any one compilation. Yet the encyclopedia is also written for the contemporary public and, although it is largely unexpressed within the works themselves, by members of the public. In this system, the encyclopedia, knowledge, and public are all fluid concepts that are unstable largely by their interconnection. Yet it is by this instability that the

system continues to move and self-perpetuate. Therefore, the comments of the compilers that seem contradictory, may therefore be seen as a reaction to the dynamic nature of the system that they are seeking to define from within. In other words, they are grappling with the paradox of the encyclopedic process on two planes: both in describing and in practicing it. It is for this reason that the entries of the compilers on the encyclopedia, as well as their prefaces, provide a poignant illustration of the loop of encyclopedia, knowledge, and public that governs the practice of encyclopedia compilation, and yet forbids it from reaching its goal.

Conclusion

At the beginning of this thesis, we posed the question of whether the concept of circularity intrinsic to the encyclopedia in its etymology, definition, and function, may apply not only within the encyclopedia, but to the encyclopedia within its context. Indeed, over the course of this thesis, we have established the structure of the relationship among encyclopedia, knowledge, and public as not only recursive, but involving a state of constant motion and negotiation among its elements. This structure is embedded within the encyclopedic goal toward universality, but at the same time prevents the realization of this ideal.

Our treatment of the universal project of the encyclopedia as it relates to the proposed structure of the encyclopedic system with knowledge and public centres around a discussion of the factors contributing to this state, and the ways in which they relate to one another to constantly reinforce the system. We have addressed the recursive structure inherent in the encyclopedic genre, in so far as it is inseparable from any encyclopedic project, and have given consideration to how changes to conceptions of universality are largely responsible for changes to the encyclopedic genre.

Given the encyclopedia's inextricable connection with the public, which can be seen as a defining feature of the genre itself, the public as a topic fraught with its own crises of definition has been explored. The public itself is fluctuating and multi-dimensional, and indissociably tied to the social factors of wealth, literacy, and gender, particularly in the context of the seventeenth and eighteenth

centuries. At this time, the public was in a state of self-refinement that necessarily resulted in selective inclusion and exclusion according to outside factors, as reflected in and motivated by the encyclopedia.

In addition to addressing issues such as genre and public that define the encyclopedic project in general, a brief history of the encyclopedias in our study establishes the very different contexts in which these works were produced and highlights the importance of context within the encyclopedia, another factor working against the possibility of objectivity and therefore universality.

This history sets the groundwork for a discussion of the chains of influence that exist among the *Cyclopaedia*, the *Encyclopédie*, and the *Britannica*, and the complexity of assigning influence within encyclopedias in general. The compilers' own conceptions of their conditions of authorship further illustrate this complexity, serving as reflections on this situation from within. Here the dual role of the compiler as sender and receiver of information is apparent as he exposes or denies influences acting on him as a member of the public, while advocating for the unique perspective offered by his own compilation.

The dual role of the compiler and the resulting complexities in his relationship with his compilation call for an exploration of this figure in regard to that of the translator, who also finds himself at the junction of incoming and outgoing flow of information. In the context of this consideration, we discuss the role of norms in translation, and particularly the norms at play in seventeenth- and eighteenth- century France and Britain. The project of universality reveals itself in these translational norms, which reinforce the connection between translation and

compilation as joined in their efforts of dissemination of a wide body of knowledge to the public, and therefore also in the impossibility of their ideals.

The universal goal of the encyclopedia that is both inherent in and prevented by the structure of the system of encyclopedia, knowledge, and public, is further developed through a discussion of Babel. The process of encyclopedia compilation labours under a paradox parallel to the Babelian contradiction often invoked in translation theory. Reflections on Babel in the encyclopedias themselves provide an interesting backdrop to this discussion, as the compilers comment on the complexities of Babel, which can be seen as hindering their own project. Through this mutual and unrealizable ideal of universality illustrated by Babel and shared by encyclopedia compilation and translation, the connection between these processes is reinforced. Yet the compilers do not explicitly acknowledge this relationship in their pages; therefore, their conceptions of translation and the translator are an example of how the compiler is unable to get outside of his compilation, and provides a kind of back door insight into the compilation process, as unintentionally outlined within the works themselves.

Reactions to the encyclopedia are deliberately expressed within the compilers' prefaces and entries on the concept of the encyclopedia. It is fitting that the thesis closes with the compilers' commentary on universality, knowledge, and the public, which serves as the most direct way of gauging the relationship between the compilers and the crucial elements within the encyclopedic system.

General Conclusions and Contributions

Having explored the encyclopedic process from within and outside the encyclopedia, we conclude that, in addition to the circular structure implied in the definitions and functions of the encyclopedia, a similar structure also applies to the larger system of encyclopedia, knowledge, and public. Because these elements are reciprocal and fluctuating, none of them can be said to *encircle* or *encompass* another. However, we propose that they may be said, aptly, to *encycle* each other, based on the idea that a cycle implies motion: the changes that constantly take place to each of the elements perpetuate the movement of the system, and this movement sustains it. Rather than swallowing any other element within the system, each one contributes to keeping the others in motion.

The structure elaborated over the course of this thesis provides a valuable model for understanding the unrealizable yet ever-strived-for universal ideal of the encyclopedia. It provides a systematic approach to the interplay of work of reference, knowledge, and public in the context of the encyclopedia, and by extension, may be beneficial in considering any broad category of process aimed at the transmission of information.

In addition, the thesis itself represents a new approach to encyclopedic research. While previous scholarship has called upon encyclopedic works to understand the process of translation, and have therefore addressed translation from the point of view of the encyclopedia, this thesis aims to consider the encyclopedia from the perspective of translation theory. To our knowledge, this is

the first study to make use of translation theory to undertake encyclopedic research, and indeed the first to draw an explicit parallel between the ideals of universality that govern encyclopedia compilation and translation, particularly through the consideration of the allegory of Babel, well developed in translation studies.

Future Research

The pursuit of an ideal that is as fundamental to the process as it is ultimately impossible forms a parallel with the Babelian paradox in translation. In light of this, several questions arise: can the universal ideal be seen as a cooperative effort among encyclopedias, rather than a goal of individual compilations? If so, questions about the categorization of encyclopedias are raised: based on the complexity in assigning influence, can any one encyclopedia be discretely separated from another? As the compiler's role shifts depending on his perspective as either giver or receiver of information, possibly from other encyclopedic sources, how can the lines of division between what is new in his compilation, and what is inspired by the information and methods in other works, be identified?

In general, research on encyclopedias has not been extensive; the discipline itself therefore calls for further development. Over the course of this project, several specific avenues for further research have additionally become apparent.

The establishment of the recursive structure of the encyclopedic context, for example, calls for commentary on encyclopedias other than the three considered in this thesis. We have focused on a sample of encyclopedias from the eighteenth century; additional encyclopedias from that time period which is so crucial to the encyclopedic genre would certainly contribute to developing a further understanding of the context of encyclopedia compilation in general. Additionally, a sampling of encyclopedias from areas other than France and Britain would enhance the discussion.

Research comparing the system of encyclopedia, knowledge, and public over time, both from within and about encyclopedias would also be especially interesting. As Chambers notes, “In effect, there is that Alteration continually making in the Language of Architecture, that there ought, in Propriety, to be a different Dictionary of it for every different Age” (1: xxv).

Particularly in the context of the current information overload experienced in many parts of the world, perspective on how contemporary encyclopedias are or are not framing this in the context of universality could be useful to an understanding of the changing structure of knowledge: has the information boom forced the encyclopedia to explicitly come to terms with the infinity of knowledge, or does the goal of capturing a body of knowledge that is universal in some way remain an organizational device that must be maintained?

Web-based encyclopedias such as Wikipedia provide an interesting framework for a contemporary discussion of the blurred lines among encyclopedia, knowledge, and public. In this context, the public is the compiler;

with such expansive and variable input, such encyclopedias seem to reach closer to universality, yet this very universality as expressed by objectivity is challenged by the diversity of contributions.

Within the context of encyclopedias of any time period, it would be interesting to explore how discursive features within entries vary according to the breadth and abstraction of the topic: is the hierarchy implied by the organization or maps of knowledge sometimes presented borne out by the text used to describe various subjects, or are differences subsumed by the format of the encyclopedia?

In fact, the maps of knowledge within encyclopedias themselves call for attention. It would be particularly interesting to investigate how these maps have been translated across languages: bound not only by language but by spatial constraints as well, these maps could serve as a fascinating object of study in the field of translation and localization, research that would contribute to exploring interdisciplinarity in order to complement an understanding of encyclopedia compilation and the field of translation.

Reflections on the Research Process

In introducing the visual illustration of the model proposed in this thesis, we advocated for an acknowledgement of its historical reach, noting that such a representation is meant to encompass and describe relationships over time, rather than at a given time. Taken in a broad context, the encyclopedia's impact can be seen as extending to the present, as much in the innovations of Chambers's

Cyclopaedia, to the social effect of the *Encyclopédie*, to the longevity of the *Britannica*. From this perspective, the research at hand can be seen as a point of access to understanding that which continues to affect the public of the present day, as the ideas promoted and disseminated during the seventeenth and eighteenth centuries can be seen on a continuum of influence that extends into the future.

Any one project, by its limitation in scope, necessarily opens doors to additional research and future perspectives. For example, our selection of the corpus of the *Cyclopaedia*, the *Encyclopédie*, and the *Britannica* represents one of many possible chains of influence. While through their connection of translation these works form a logical triad, many alternative chains are possible, based on different criteria of influence. With each study that involves centuries-old corpus materials, the original works grow and expand in their influence.

The specific concepts addressed over the course of this research are encyclopedia, knowledge, public, and universality. Taken together, these concepts form an impressive and important body of subjects just as critical today as in the eighteenth century. In addition, this thesis can by extension be seen as relevant in the context of education, history, and social stratification, and indeed, any forum involving the social exchange of ideas. The field of education presents an interesting application of encyclopedic research, which raises questions of universality and the spread of information, and, as outlined in Chapter 7, the moral instruction of the general public as contrasted with objectivity. The encyclopedia also fits within the context of the library, which aims at

exhaustiveness of material and clientele in so far as possible, and which can be seen as social as much as informative in its function. In fact, the connection between the encyclopedia and the library is made explicit on more than one occasion by the compilers themselves and, more generally, the encyclopedia as a social space can be inferred by comments found within the pages of these texts, as in the *Encyclopédie*:

La nécessité de garantir notre propre corps de la douleur & de la destruction, nous fait examiner parmi les objets extérieurs, ceux qui peuvent nous être utiles ou nuisibles, pour rechercher les uns & fuir les autres. Mais à peine commençons nous à parcourir ces objets, que nous découvrons parmi eux un grand nombre d'êtres qui nous paroissent entierement semblables à nous, c'est-à-dire, dont la forme est toute pareille à la nôtre, & qui, autant que nous en pouvons juger au premier coup d'œil, semblent avoir les mêmes perceptions que nous: tout nous porte donc à penser qu'ils ont aussi les mêmes besoins que nous éprouvons, & par conséquent le même intérêt de les satisfaire; d'où il résulte que nous devons trouver beaucoup d'avantage à nous unir avec eux pour démêler dans la nature ce qui peut nous conserver ou nous nuire. La communication des idées est le principe & le soutien de cette union, & demande nécessairement l'invention des signes; telle est l'origine de la formation des sociétés avec laquelle les langues ont dû naître (1: iij).

This quote highlights, as much as the importance of language, the underlying and fundamental motivation in the encyclopedia of the communication of ideas. According to the *Encyclopédistes*, this communication stems from an innate desire for self-preservation. In this context, the dissemination of knowledge in the context of the encyclopedia attains a critical and global importance.

This comment betrays the massive ideal of the *Encyclopédie*, taking the encyclopedia's purpose beyond that of dissemination to the more intrinsic and humanistic project of uniting people. From this perspective, the encyclopedia's importance is related less to the content that it communicates than to its status as an act of communication itself. In this light, the structure of the encyclopedia in context with knowledge and public, becomes the very structure of our interactions with one another.

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Appendices

Excerpts from the *Cyclopaedia*, the *Encyclopédie*, and the
Encyclopaedia Britannica

Encyclopaedia
CYCLOPÆDIA:
OR, AN
UNIVERSAL DICTIONARY
OF
ARTS and SCIENCES;

CONTAINING
The **DEFINITIONS** of the **TERMS**,
And **ACCOUNTS** of
The **THINGS** signify'd thereby,
In the several **ARTS**,
Both **LIBERAL** and **MECHANICAL**,
And the several **SCIENCES**,
HUMAN and **DIVINE**:
The Figures, Kinds, Properties, Productions, Preparations, and Uses,
of Things **NATURAL** and **ARTIFICIAL**;
The Rise, Progress, and State of Things **ECCLESIASTICAL**,
CIVIL, **MILITARY**, and **COMMERCIAL**:
With the several Systems, Sects, Opinions, &c. among Philosophers, Divines,
Mathematicians, Physicians, Antiquaries, Critics, &c.

*The Whole intended as a Course of Antient and Modern **LEARNING**.*

Compiled from the best Authors, Dictionaries, Journals, Memoirs,
Transactions, Ephemerides, &c. in several Languages.

In **TWO VOLUMES**.

By **E. CHAMBERS** Gent.

*Floriferis ut apes in salibus omnia libant,
Omnia nos* — **LUCRET.**

VOLUME the FIRST.

L O N D O N :

Printed for James and John Knapton, John Darby, Daniel Midwinter, Arthur Buttsworth,
John Senex, Robert Gosling, John Pemberton, William and John Innes, John Osborn and Tho.
Longman, Charles Rivington, John Hoake, Rance Robinson, Francis Clay, Awen Ward,
Edward Symon, Daniel Browne, Andrew Johnson, and Thomas Osborn. M.DCC.XXVIII.

THE P R E F A C E.

TIS not without some Concern that I put this Work in the Reader's Hands; a Work so disproportionate to a single Person's Experience, and which might have employ'd an Academy. What adds to my Jealousy, is the little measure of Time allow'd for a Performance to which a Man's whole Life scarce seems equal. The bare Vocabulary of the Academy *della Crusca* was above forty Years in compiling, and the Dictionary of the *French Academy* much longer; and yet the present Work is as much more extensive than either of them in its Nature and Subject, as it falls short of 'em in number of Years, or of Persons employ'd.

THE Reader might be here led to suspect something of Disingenuity; and think I first put a Book upon him, and then give him Reasons why I should not have done it.—But his Suspicions will cease, when he is appriz'd of the Advantages under which I engaged; which, in one Sense, are superior to what had been known in any former Work of the Kind; all that had been done in them accruing, of course, to the Benefit of this. I come like an Heir to a large Patrimony, gradually rais'd by the Industry, and Endeavours of a long Race of Ancestors. What the *French Academijs*, the *Jesuits de Trevoux*, *Daviler*, *Ghemel*, *Savary*, *Chauvin*, *Harrii*, *Wolffius*, and many more have done, has been subservient to my Purposes. To say nothing of a numerous Class of particular Dictionaries which contributed their Share; Lexicons on almost every Subject, from Medicine and Law, down to Heraldry and the Manage.

Yet this is but a Part. I am far from having contented my self to take what was ready procur'd; but have augmented it with a large Accession from other Quarters. No part of the Commonwealth of Learning, but has been traffick'd to on this Occasion. Recourc has been had to the *Originals* themselves on the several Arts; and, not to mention what small Matters could be furnish'd *de proprio pemu*, the Reader will here have Extracts and Accounts from a great Number of *Authors* of all Kinds, either overlook'd by former Dictionarists, or not then extant; and a Multitude of Improvements in the several Parts, especially of Natural Knowledge, made in these last Years. I should produce Instances hereof; but I hope this would be needless, as it is endless; and that there are few Pages which will not afford several.

SUCH are the Sources from whence the Materials of the present Work were deriv'd; which, it must be allow'd, were rich enough not only to afford Plenty, but even Profusion: So that the chief Difficulty lay in the Form; in the Order, and OEconomy of the Work: To dispose such a Variety of Materials in such manner, as not to make a confus'd Heap of incongruous Parts, but one consistent Whole.—And here it must be confess'd there was no Assistance to be had; but I was forced to stand wholly on my own Bottom. Former Lexicographers have not attempted any thing like Structure in their Works; nor seem to have been aware that a Dictionary was in some measure capable of the Advantages of a continued Discourse. Accordingly, we see nothing like a Whole in what they have done: And hence, such Materials as they did afford for the present Work, generally needed further Preparation, ere they became fit for our Purpose; which was as different from theirs, as a System from a Cento.

THIS we endeavour'd to attain, by considering the several Matters not only absolutely and independently, as to what they are in themselves; but also relatively, or as they respect each other. They are both treated as so many Wholes, and as so many Parts of some greater Whole; their Connexion with which, is pointed out by a *Reference*. So that by a Course of References, from Generals to Particulars; from Premises to Conclusions; from Cause to Effect; and *vice versa*, i. e. in one word, from more to less complex, and from less to more: A Communication is opened between the several Parts of the Work; and the several Articles are in some measure replac'd in their natural Order of Science, out of which the Technical or Alphabetical one had remov'd them.

FOR an Instance.—The Article ANATOMY is not only consider'd as a *Whole*, i. e. as a particular Combination or System of Ideas; and accordingly divided into its Parts, *Humane* and *Comparative*: and *Humane* again subdivided into the Analysis of *Solids* and *Fluids*, (which are refer'd to in the several Places in the Book, where they themselves being treated of, refer to others still lower, and so on) but also as a *Part* of *MEDICINE*; which accordingly it refers to, and which it self refers to another higher, &c.—By which means a Chain is carry'd on from one End of an Art to the other, i. e. from the first or simplest Complication of Ideas appropriated to the Art, which we call the *Elements* or Principles thereof; to the most complex or general one, the *Name* or Term that denotes the whole Art.

NOR is the Pursuit dropt here; but as the Elements or Data in one Art, are ordinarily *quæsita* in some other subordinate one, and are furnish'd thereby; (as here for Instance, the Elements of *Anatomy* are furnish'd by *Natural History*, *Physicks*, and *Mechanicks*; and *Anatomy* may be consider'd as a *Datum*, or Element furnish'd to *Medicine*) We carry on the View farther, and refer out of one Art or Province into the adjoining ones, and thus by the whole Land of Knowledge open: It appears indeed with the Face of a Wilderness; but 'tis a Wilderness thro' which the Reader may pursue his Journey as securely, tho not so expeditiously and easily, as thro' a regular Parterre.

IT may be even said, that if the System be an Improvement upon the Dictionary; the Dictionary is some Advantage to the System; and that this is perhaps the only Way wherein the whole Circle or Body of Knowledge can be deliver'd. In any other Form, many thousand Things must necessarily be hid and overlook'd: All the Pins, the Joints, the binding of the Fabrick must be invisible of course; all the lesser Parts, one might say all the Parts whatsoever, must be in some measure swallow'd up in the Whole. The Imagination, stretch'd
and

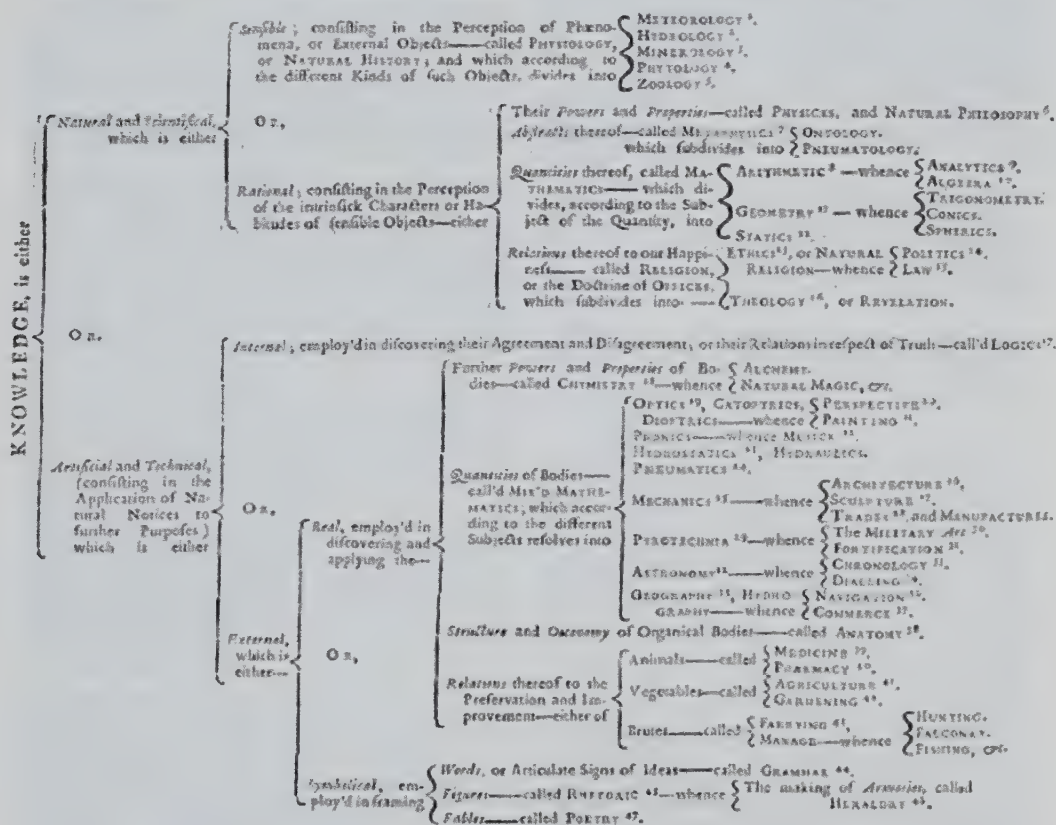
and amplified to take in so large a Structure, can have but a very general, indistinct Perception of any of the Parts.—Whereas the Parts are not less Matter of Knowledge when taken separately, than when put together. Nay, and in strictness, as our Ideas are all Singulars or Individuals, and as every Thing that exists is one; it seems more natural to consider Knowledge in its proper Parts, *i. e.* as divided into separate Articles denoted by different Terms; than to consider the whole Assemblage of it in its utmost Composition: which is a thing merely artificial and imaginary.

AND yet the latter Way must be allow'd to have many and real Advantages over the former; which in truth is only of use and significance as it partakes thereof: For this Reason, that all Writing is in its own Nature artificial; and that the Imagination is really the Faculty it immediately applies to. Hence it should follow, that the most advantageous way, is to make use of both Methods: To consider every Point both as a Part; to help the Imagination to the Whole: and as a Whole, to help it to every Part.—Which is the View in the present Work—so far as the many and great Difficulties we had to labour under would allow us to pursue it.

IN this View we have endeavoured to give the Substance of what has been hitherto found in the several Branches of Knowledge both natural and artificial; that is, of Nature, *first*, as she appears to our Senses; either spontaneously, as in Natural History; or with the Assistance of Art, as in Anatomy, Chymistry, Medicine, Agriculture, &c. *Secondly*, to our Imagination; as in Grammar, Rhetorick, Poetry, &c. *Thirdly*, to our Reason; as in Physicks, Metaphysics, Logicks, and Mathematicks. With the several subordinate Arts arising from each; as Architecture, Painting, Sculpture, Trade, Manufactures, Policy, Law, &c. and numerous remote Particulars, not immediately reducible to any of these Heads: as Heresley, Pathology, Antiquities, Customs, &c.

THE Plan of the Work, then, I hope, will be allow'd to be good; whatever Exceptions may be taken to the Execution of it. It would look extravagant to say, That half the Men of Letters of an Age might be employ'd in it to advantage; and yet it will appear, that a Work accomplish'd as it ought to be, on the Footing of this, would answer all the Purposes of a Library, except Parade and Incumbrance; and contribute more to the propagating of useful Knowledge thro' the Body of a People, than any, I had almost said all, the Books extant.—After this, let the Reader judge how far I may deserve Censure for engaging in it, even disadvantageously; and whether to have fail'd in so noble a Design, may not be some degree of Praise.

BUT, it will be here necessary to carry on the Division of Knowledge a little further; and make a precise Partition of the Body thereof, in the more formal Way of Analysis: The rather, as an Analysis, by shewing the Origin and Derivation of the several Parts, and the Relation in which they stand to their common Stock and to each other; will assist in restoring 'em to their proper Places, and connecting 'em together.



THIS is a View of Knowledge, as it were, *in femine*; exhibiting only the grand, constituent Parts thereof. It would be endless to pursue it into all its Members and Ramifications; which is the proper Business of the Book itself. It might here, therefore, seem sufficient to refer from the several Heads thus deduced, to the same in the Course of the Work; where their Division is carried on. And yet this would sometimes prove inconvenient for the Reader; who to find some particular Matter must go a long Circuit, and be haunted from one part of the Book to another: To say nothing of the Interruptions which may frequently happen in the Series of References. To obviate this we shall take a middle Course, and carry on the Distribution further, in a Note in the Margin;

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I

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ENCROACHMENT, or ACCROACHMENT, an unlawful gathering upon another Man's. As, if two Men's Grounds lying together, the one goes too far on the other's. Or, a Tenant owe Two Shillings Rent Service, and the Lord exacts Three.

ENCRATITÆ, ancient Heretics, thus call'd from their making Profession of Continence, and absolutely rejecting Marriage.

The Word is form'd from the Greek, *Enkratitai*, Continent. The Founder of this Sect was *Tartarus*, a Disciple of *John*, and one of the most learned Persons of all Antiquity. After the Death of that Martyr, he made a Separation from the Church; and soon had his Followers; who, beside the Dogma just mention'd, borrow'd a great many Things from *Astrucius*, and *Marcian*, beside several Errors which they adhered to in common with the *Gnosticks* and *Manicheans*.

They abstain'd from eating any Thing that had Life; and decreed that *Adam* was saved. They look'd on such as drank Wine to be very great Sinners; and for this Reason, only made Use of Water in celebrating the Eucharist: As holding that Wine came from the Devil. To maintain this Sentiment, they produced Passages out of Scripture, where *men* is made of what befit *Nash* and *Lot* when they were drunk.

They only admitted such of the Books of the Old Testament as they thought good: But in Lieu thereof, they read several spurious and Apocryphal Writings for Canonical and Divine. Such were the Acts of *St. Andrew*, *John*, and *Thomas*.

ENCYCLOPÆDIA, the Circle, or Chain, of all Sciences and Arts. See ART and SCIENCE.

The Word is compounded of the Preposition *en*, in, and *kyklos*, Circle, and *paideia*, Science, Doctrine, Discipline, Learning; the Root being *paio*, Child, Infant.

To mistake that some derive the Word from *mis*, *to miss*, or *to err*, that holds by the Feet; it being wrote in Greek by an *en*, not an *es*: *Ενκυκλοπαίδια*.

The Greeks used the Term for the Knowledge of the four liberal Arts, and the Possession of all Sciences: *Οἷον ἡ δόξιναι ἧν οἱ Ἕλληνες ἐκκατασκευάζοντες ἐκαστὸν τῶν πεντακλίων*. They also call'd it *ἐνκυκλοπαίδια*. *Vitruvius* somewhere calls it *Encephalos* Discipline.

ENDECAGON, or HENDECAGON, in Geometry, a Figure of eleven Angles, and consequently eleven Sides. See POLYGON.

The Word is Greek, *ενδεκαγων*, form'd of *ενδεκα*, Eleven, and *γωνία*, Angle.

ENDECASYLLABUS, or HENDECASYLLABUS, a Verb consisting of Eleven Syllables. See VERB.

Of this we have Abundance of Instances in the Greek and Latin, and still more in the Italian Poetry.

The Greek and Latin *Endecasyllabus*, is also call'd *Pentecost*, from the Name of its Author: Tho', in Common, we have *Phalenci*, that only contain two Syllables.

ENDEMICK, ENDIMIAL, or ENDEMIQUE Disease, thus call'd from *en*, in, and *δῆμος*, *Populus*, People) is any Disease which afflicts many People together, in the same Country; as proceeding from some Cause, peculiar to the Country where it reigns. See DISEASE.

Such are the Scurvy to the Northern Climes, intermitting Fevers in marshy Places, &c.

INDENTED, ENDECHIED, DENTED, INDENTED, in Heraldry, is applied to a Fess, a Pale, and other triangular Parts, when divided alternately between two different Colours.

Comp. or *Endented*, with *Or* and *Argent*. See INDENTED.

ENDITEMENT, or INDICTMENT, in Common Law, is much the same as *Accusatio* in the Civil Law; tho', in some Points, it differs.

It may be defined a Bill, or Declaration made, in Form of Law, (for the Benefit of the Common-Wealth) exhibited as an Accusation of a Person, for some Offence, either Criminal, or Penal; unto the Jurors; and by their Verdict, found, and presented to be true, before an Officer having Power to punish the said Offence. See INDICTMENT.

It is always at the Suit of the King, and differs from an Accusation in this, that the Pretence is no Way tied to the Proof thereof, upon any Penalty, if it be not proved; except there appear Conspiracy. See JURY, &c.

ENDORSE, in Heraldry, an Ordinary, containing the eighth Part of a Pale. This, *Leigh* says, is never used but when a Pale is between two such: Others hold, that an *Endorse* may be bore between Birds, Fishes, Beasts, &c. See FESS. adds, that it shews the same Coat has been sometimes two Coats, and afterwards conjoined within one Escutcheon, for some Mystery of Arms. He bears *Argent*.



one Escutcheon, for some Mystery of Arms. He bears *Argent*.

ENDORSED, or ENDOSSE, in Heraldry, is where Things are bore back to back.

ENDORING, or INDORSING, in Law, implies the Writing on the backside of a Deed, Instrument, &c. something relating to the Matters contain'd therein.

Endorsement is particularly used in Commerce for a Writing on the Back of a Bill of Exchange, by the Proprietor, or Bearer; either, thereby, to transfer it to some other, or to render it payable to the Order of some other; or to serve for an Acquittance or Receipt. The *Endorsement* is the simple Name of the Proprietor, or *Endorser*.

Note, when the *Endorsement* of a Bill of Exchange is to render it payable to another, it is call'd an *Order*. See ORDER.

To an Order, 'tis necessary the *Endorsement* be dated; and contain the Name of him who paid the Value thereof: In which Case the Bill belongs to the Person with whose Name the Order is fill'd; without any other Transfer: Without these Conditions, the Bill is judg'd to belong to the Person who *Endorsed* it.

The Bearer of a Bill of Exchange protested, has a Remedy against the *Endorsers*, for the Payment of the Exchange of the Places where the Bill was negotiated by their Order. In Case a Bill or Note is refus'd to be paid, &c. the Bearer has a Remedy against any one of the *Endorsers*, where there are several. See BILL.

ENDOWMENT, the giving, or assigning, of a Dowry to a Woman. See DOWRY.

The Word is also used figuratively for the setting forth, or severing, of a sufficient Portion for a Vicar, towards his perpetual Maintenance, when the Benefice is appropriated: Whence such a Vicarage, is called a Vicarage *endowed*. See VICARAGE.

ENEMA, from *enipo*, *inmitto*, I send in; is sometimes used to express a Clyster. See CLYSTER.

ENÆMON, according to *Blanchard*, is a Medicine which stops or stanches the Blood: Or which, by binding, cooling, or drying, closes the Passages of the Vessels before open; or diminishes the Fluidity and Motion of the Blood. See SYMPLECTIC.

ENÆOREMA, from *enaisio*, I lift up, or float; expresses such Contents of the Urine, as float about in the middle, resembling a Cloud; and thence also call'd *Nubecula Hypostasis*. See NUBECULA and URINE.

ENERGUMENUS, a Term used by Divines, and Schoolmen, to signify a Person possess'd with a Devil, or an Evil Spirit. See POSSESSION.

Tho' *Papias* says, the *Energumenes* were such as counterfeited the Actions of the Devil, performing Things which seem'd supernatural. The Council of Orange debars, or deprives, the *Energumens* of the Functions of the Priesthood.

The Word is form'd from the Greek, *ενεργειν*, to be agitated, work'd, of *en* and *εργον*, *Opus*.

ENERGY, an uncommon Force, or Strength, in a Discourse, a Sentence, or a Word. Thus, we say, the Words of Holy Scripture are full of *Energy*.

The Word is Greek, *ενεργεια*, form'd of the Preposition *en* and *εργον*, *Work*, I. *Opus*.

We also say *Energie*, as *Energie* Style, *Energie* Terms, &c. The same Appellation *Energie*, has been given to a religious Sect, of the Sixteenth Century, by Reason they held that the Eucharist was the *Energie*, and Virtue of Jesus Christ, not his Body, nor a Representation thereof.

ENERVATE, to destroy the Force, Use, or Office of the Nerves; either by cutting them, by weakening them with Debauchery, or by some other Violence.

Excess of Wine, and other strong, hot, spirituous Liquors, *enervate*, weaken the Nerves. When they would render a House sickly, they *Enervate* him, or cut his Nerve.

In the Manage, *Enervating* is particularly used for the cutting two Tendons in the Side of a Horse's Head, under the Eyes, which meet on the Tip of the Nose: They *Enervate* Horses to make their Head small and lean.

The Word is also used figuratively: 'Tis no small Artifice in disputing, to be able to *Enervate*, and extenuate the Allegations of one's Antagonist. This Author has a weak, *Enervate* Style. See NOVEL.

ENERVATION, a Term in the ancient Anatomy, applied to the Tendons of the Recti, or direct Muscles, of the Abdomen.

The Fibres of the Recti of the Abdomen, do not go from one Extremity of the Muscle to the other, but are interlarded by several Nervous Places, called by the Ancients *Enervatio*; tho' they be not Tendons.

Their Number is not alike in all: Some having three, others four, &c. See RECTI.

INFANS Properly, a Child of five or six Years, literally implying *Inf* Children, and by a bold Metonymy, *Paragon* for *Inf* used

ENCYCLOPÉDIE,
OU
DICTIONNAIRE RAISONNÉ
DES SCIENCES,
DES ARTS ET DES MÉTIERS,
PAR UNE SOCIÉTÉ DE GENS DE LETTRES.

Mis en ordre & publié par M. DIDEROT, de l'Académie Royale des Sciences & des Belles-Lettres de Prusse; & quant à la PARTIE MATHÉMATIQUE, par M. D'ALEMBERT, de l'Académie Royale des Sciences de Paris, de celle de Prusse, & de la Société Royale de Londres.

*Tantum series juncturaque pollet,
Tantum de medio sumptis accedit honoris! HORAT.*

TOME PREMIER.



A GENEVE.
CHEZ CRAMER L'AINÉ & Compagnie.

M. DCC. LXXII.

de cette Encyclopédie , il est tems enfin d'instruire plus particulièrement le public sur l'Ouvrage que nous lui présentons. Le *Prospectus* qui a déjà été publié dans cette vue , & dont M. DIDEROT mon collègue est l'auteur , ayant été reçu de toute l'Europe avec les plus grands éloges , je vais en son nom le remettre ici de nouveau sous les yeux du Public , avec les changemens & les additions qui nous ont paru convenable à l'un & à l'autre.

ON NE PEUT DISCONVENIR que depuis le renouvellement des Lettres parmi nous , on ne doive en partie aux Dictionnaires les lumieres générales qui se sont répandues dans la société , & ce germe de Science qui dispose insensiblement les esprits à des connoissances plus profondes. L'utilité sensible de ces sortes d'ouvrages les a rendus si communs , que nous sommes plutôt aujourd'hui dans le cas de les justifier que d'en faire l'éloge. On prétend qu'en multipliant les secours & la facilité de s'instruire , ils contribueront à éteindre le goût du travail & de l'étude. Pour nous , nous croyons être bien fondés à soutenir que c'est à la manie du bel esprit & à l'abus de la Philosophie , plutôt qu'à la multitude des Dictionnaires , qu'il faut attribuer notre paresse & la décadence du bon goût. Ces sortes de collections peuvent tout au plus servir à donner quelques lumieres à ceux qui sans ce secours n'auroient pas eu le courage de s'en procurer : mais elles ne tiendront jamais lieu de Livres à ceux qui chercheront à s'instruire ; les Dictionnaires par leur forme même ne sont propres qu'à être consultés , & se refusent à toute lecture suivie. Quand nous apprendrons qu'un homme de Lettres , desirant d'étudier l'Histoire à fond , aura choisi pour cet objet le Dictionnaire de Moreri , nous conviendrons du reproche que l'on veut nous faire. Nous aurions peut-être plus de raison d'attribuer l'abus prétendu dont on se plaint , à la multiplication des méthodes , des élémens , des abrégés , & des bibliothèques , si nous n'étions persuadés qu'on ne sauroit trop faciliter les moyens de s'instruire. On abrégeroit encore davantage ces moyens , en réduisant à quelques volumes tout ce que les hommes ont découvert jusqu'à nos jours dans les Sciences & dans les Arts. Ce projet , en y comprenant même les faits historiques réellement utiles , ne seroit peut-être pas impossible dans l'exécution ; il seroit du moins à souhaiter qu'on le tentât ; nous ne prétendons aujourd'hui que l'ébaucher ; & il nous débarrasseroit enfin de tant de Livres , dont les Auteurs n'ont fait que se copier les uns les autres. Ce qui doit nous rassurer contre la satire des Dictionnaires , c'est qu'on pourroit faire le même reproche , sur un fondement aussi peu solide , aux Journalistes les plus estimables. Leur but n'est-il pas essentiellement d'exposer en raccourci ce que notre siècle ajoûte de lumiere à celles des siècles précédens ; d'apprendre à se passer des originaux , & d'arracher par conséquent ces épines que nos adversaires voudroient qu'on laissât ? Combien de lectures inutiles dont nous nous ferions dispensés par de bons extraits !

Nous avons donc crû qu'il importoit d'avoir un Dictionnaire qu'on pût consulter sur toutes les matieres des Arts & des Sciences , & qui servît autant à guider ceux qui se sentent le courage de travailler à l'instruction des autres , qu'à éclairer ceux qui ne s'instruisent que pour eux-mêmes.

Jusqu'ici personne n'avoit conçu un Ouvrage aussi grand , ou du moins personne ne l'avoit exécuté. Leibnitz , de tous les Savans le plus capable d'en sentir les difficultés , desiroit qu'on les surmontât. Cependant on avoit des Encyclopédies ; & Leibnitz ne l'ignoroit pas , lorsqu'il en demandoit une.

La plupart de ces Ouvrages parurent avant le siècle dernier , & ne furent pas tout-à-fait méprisés. On trouva que s'ils n'annonçoient pas beaucoup de génie , ils marquoient au moins du travail & des connoissances. Mais que seroit-ce pour nous que ces Encyclopédies ? Quel progrès n'a-t-on pas fait depuis dans les Sciences & dans les Arts ? Combien de vérités découvertes aujourd'hui , qu'on n'entrevoyoit pas alors ? La vraie Philosophie étoit au berceau ; la Géométrie de l'infini n'étoit pas encore ; la Physique expérimentale se montrait à peine ; il n'y avoit point de Dialectique ; les lois de la saine critique étoient entièrement ignorées. Les Auteurs célèbres en tout genre dont nous avons parlé dans ce Discours , & leurs illustres disciples , ou n'existoient pas , ou n'avoient pas écrit. L'esprit de recherche & d'émulation n'animoit pas les Savans ; un autre esprit , moins fécond peut-être , mais plus rare , celui de justesse & de méthode , ne s'étoit point soumis les différentes parties de la Littérature ; & les Académies , dont les travaux ont porté si loin les Sciences & les Arts , n'étoient pas instituées.

Si les découvertes des grands hommes & des compagnies savantes dont nous venons de parler , offrirent dans la suite de puissans secours pour former un Dictionnaire encyclopédique , il faut avouer aussi que l'augmentation prodigieuse des matieres rendit , à d'autres égards , un tel Ouvrage beaucoup plus difficile. Mais ce n'est point à nous à juger si les successeurs des premiers Encyclopédistes ont été hardis ou présomptueux ; & nous les laissons tous jouir de leur réputation , sans en excepter Ephraïm CHAMBERS le plus connu

d'entr'eux, si nous n'avions des raisons particulières de peser le mérite de celui-ci.

L'Encyclopédie de Chambers dont on a publié à Londres un si grand nombre d'éditions rapides; cette Encyclopédie qu'on vient de traduire tout récemment en Italien, & qui de notre aveu mérite en Angleterre & chez l'étranger les honneurs qu'on lui rend, n'eût peut-être jamais été faite, si avant qu'elle parût en Anglois, nous n'avions eu dans notre Langue des Ouvrages où Chambers a puisé sans mesure & sans choix la plus grande partie des choses dont il a composé son Dictionnaire. Qu'en auroient donc pensé nos François sur une traduction pure & simple? Il eût excité l'indignation des Savans & le cri du Public, à qui on n'eût présenté sous un titre fastueux & nouveau, que des richesses qu'il possédoit depuis longtemps.

Nous ne refusons point à cet Auteur la justice qui lui est due. Il a bien senti le mérite de l'ordre encyclopédique, ou de la chaîne par laquelle on peut descendre sans interruption des premiers principes d'une Science ou d'un Art jusqu'à ses conséquences les plus éloignées, & remonter de ses conséquences les plus éloignées jusqu'à ses premiers principes; passer imperceptiblement de cette Science ou de cet Art à un autre, & s'il est permis de s'exprimer ainsi, faire sans s'égarer le tour du monde littéraire. Nous convenons avec lui que le plan & le dessein de son Dictionnaire sont excellens, & que si l'exécution en étoit portée à un certain degré de perfection, il contribueroit plus lui seul aux progrès de la vraie Science, que la moitié des Livres connus. Mais, malgré toutes les obligations que nous avons à cet Auteur, & l'utilité considérable que nous avons retirée de son travail, nous n'avons pu nous empêcher de voir qu'il restoit beaucoup à y ajouter. En effet, conçoit-on que tout ce qui concerne les Sciences & les Arts puisse être renfermé en deux volumes *in-folio*? La nomenclature d'une matière aussi étendue en fourniroit une seule, si elle étoit complète. Combien donc ne doit-il pas y avoir dans son Ouvrage d'articles omis ou tronqués?

Ce ne sont point ici des conjectures. La traduction entière du Chambers nous a passé sous les yeux, & nous avons trouvé une multitude prodigieuse de choses à désirer dans les Sciences; dans les Arts libéraux, un mot où il falloit des pages; & tout à suppléer dans les Arts mécaniques. Chambers a lu des Livres, mais il n'a guère vû d'artistes; cependant il y a beaucoup de choses qu'on n'apprend que dans les ateliers. D'ailleurs il n'en est pas ici des omissions comme dans un autre Ouvrage. Un article omis dans un Dictionnaire commun le rend seulement imparfait. Dans une Encyclopédie, il rompt l'enchaînement, & nuit à la forme & au fond; & il a fallu tout l'art d'Ephraïm Chambers pour pallier ce défaut.

Mais, sans nous étendre davantage sur l'Encyclopédie Angloise, nous annonçons que l'Ouvrage de Chambers n'est point la base unique sur laquelle nous avons élevé; que l'on a refait un grand nombre de ses articles; que l'on n'a employé presque aucun des autres sans addition, correction, ou retranchement, & qu'il rentre simplement dans la classe des Auteurs que nous avons particulièrement consultés. Les éloges qui furent donnés il y a six ans au simple projet de la Traduction de l'Encyclopédie Angloise, auroient été pour nous un motif suffisant d'avoir recours à cette Encyclopédie, autant que le bien de notre Ouvrage n'en souffriroit pas.

La Partie mathématique est celle qui nous a paru mériter le plus d'être conservée: mais on jugera par les changemens considérables qui y ont été faits, du besoin que cette Partie & les autres avoient d'une exacte révision.

Le premier objet sur lequel nous nous sommes écartés de l'Auteur Anglois, c'est l'Arbre généalogique qu'il a dressé des Sciences & des Arts, & auquel nous avons cru devoir en substituer un autre. Cette partie de notre travail a été suffisamment développée plus haut. Elle présente à nos lecteurs le carevas d'un Ouvrage qui ne se peut exécuter qu'en plusieurs Volumes *in-folio*, & qui doit contenir un jour toutes les connoissances des hommes.

A l'aspect d'une matière aussi étendue, il n'est personne qui ne fasse avec nous la réflexion suivante. L'expérience journalière n'apprend que trop combien il est difficile à un Auteur de traiter profondément de la Science ou de l'Art dont il fait toute sa vie une étude particulière. Quel homme peut donc être assez hardi & assez borné pour entreprendre de traiter seul de toutes les Sciences & de tous les Arts?

Nous avons inféré de-là que pour soutenir un poids aussi grand que celui que nous avons à porter, il étoit nécessaire de le partager; & sur le champ nous avons jeté les yeux sur un nombre suffisant de Savans & d'Artistes; d'Artistes habiles & connus par leurs talens; de Savans exercés dans les genres particuliers qu'on avoit à confier à leur travail. Nous avons distribué à chacun la partie qui lui convenoit; quelques-uns même étoient en possession de la leur, avant que nous nous chargeassions de cet Ouvrage. Le Public verra bientôt leurs noms, & nous ne craignons point qu'il nous les reproche. Ainsi, chacun n'ayant été occupé que de ce qu'il entendoit, a été en état de juger sainement de ce qu'en ont écrit les Anciens & les Modernes, & d'ajouter aux secours qu'il en a tirés, des connoissances puisées

dans son propre fonds. Personne ne s'est avancé sur le terrain d'autrui, & ne s'est mêlé de ce qu'il n'a peut-être jamais appris; & nous avons eu plus de méthode, de certitude, d'étendue, & de détails qu'il ne peut y en avoir dans la plupart des Lexicographes. Il est vrai que ce plan a réduit le mérite d'Editeur à peu de chose; mais il a beaucoup ajouté à la perfection de l'Ouvrage; & nous penserons toujours nous être acquis assez de gloire, si le Public est satisfait. En un mot, chacun de nos Collegues a fait un Dictionnaire de la Partie dont il s'est chargé; & nous avons réuni tous ces Dictionnaires ensemble.

Nous croyons avoir eu de bonnes raisons pour suivre dans cet Ouvrage l'ordre alphabétique. Il nous a paru plus commode & plus facile pour nos lecteurs, qui desirant de s'instruire sur la signification d'un mot, le trouveront plus aisément dans un Dictionnaire alphabétique que dans tout autre. Si nous eussions traité toutes les Sciences séparément, en faisant de chacune un Dictionnaire particulier, non-seulement le prétendu désordre de la succession alphabétique auroit eu lieu dans ce nouvel arrangement, mais une telle méthode auroit été sujette à des inconvéniens considérables par le grand nombre de mots communs à différentes Sciences, & qu'il auroit fallu répéter plusieurs fois ou placer au hasard. D'un autre côté, si nous eussions traité de chaque Science séparément & dans un discours suivi, conforme à l'ordre des idées, & non à celui des mots, la forme de cet Ouvrage eût été encore moins commode pour le plus grand nombre de nos lecteurs qui n'y auroient rien trouvé qu'avec peine; l'ordre encyclopédique des Sciences & des Arts y eût peu gagné, & l'ordre encyclopédique des mots, ou plutôt des objets par lesquels les Sciences se communiquent & se touchent, y auroit infiniment perdu. Au contraire, rien de plus facile dans le plan que nous avons suivi que de satisfaire à l'un & à l'autre: c'est ce que nous avons détaillé ci-dessus. D'ailleurs, s'il eût été question de faire de chaque Science & de chaque Art un traité particulier dans la forme ordinaire, & de réunir seulement ces différens traités sous le titre d'Encyclopédie, il eût été bien plus difficile de rassembler pour cet Ouvrage un si grand nombre de personnes, & la plupart de nos Collegues auroient sans doute mieux aimé donner séparément leur Ouvrage, que de le voir confondu avec un grand nombre d'autres. De plus, en suivant ce dernier plan, nous eussions été forcés de renoncer presque entièrement à l'usage que nous voulions faire de l'Encyclopédie Angloise, entraînés tant par la réputation de cet Ouvrage, que par l'ancien *Prospectus*, approuvé du Public, & auquel nous desirions de nous conformer. La Traduction entière de cette Encyclopédie nous a été remise entre les mains par les Libraires qui avoient entrepris de la publier; nous l'avons distribuée à nos Collegues, qui ont mieux aimé se charger de la revoir, de la corriger, de l'augmenter, que de s'engager sans avoir, pour ainsi dire, aucuns matériaux préparatoires. Il est vrai qu'une grande partie de ces matériaux leur a été inutile, mais du moins elle a servi à leur faire entreprendre plus volontiers le travail qu'on espéroit d'eux; travail auquel plusieurs se seroient peut-être refusé, s'ils avoient prévu ce qu'il devoit leur coûter de soins. D'un autre côté, quelques-uns de ces Savans, en possession de leur Partie long-tems avant que nous fussions Editeurs, l'avoient déjà fort avancée en suivant l'ancien projet de l'ordre alphabétique; il nous eût par conséquent été impossible de changer ce projet, quand même nous aurions été moins disposés à l'approuver. Nous savions enfin, ou du moins nous avions lieu de croire qu'on n'avoit fait à l'Auteur Anglois, notre modele, aucunes difficultés sur l'ordre alphabétique auquel il s'étoit assujéti. Tout se réunissoit donc pour nous obliger de rendre cet Ouvrage conforme à un plan que nous aurions suivi par choix, si nous en eussions été les maîtres.

La seule opération dans notre travail qui suppose quelque intelligence, consiste à remplir les vuides qui séparent deux Sciences ou deux Arts, & à renouer la chaîne dans les occasions où nos Collegues se sont reposés les uns sur les autres de certains articles, qui paroissant appartenir également à plusieurs d'entr'eux, n'ont été faits par aucun. Mais afin que la personne chargée d'une Partie ne soit point comptable des fautes qui pourroient se glisser dans des morceaux surajoutés, nous aurons l'attention de distinguer ces morceaux par une étoile. Nous tiendrons exactement la parole que nous avons donnée; le travail d'autrui sera sacré pour nous, & nous ne manquerons pas de consulter l'Auteur, s'il arrive dans le cours de l'Édition que son ouvrage nous paroisse demander quelque changement considérable.

Les différentes mains que nous avons employées ont apposé à chaque article comme le sceau de leur style particulier, ainsi que celui du style propre à la matière & à l'objet d'une Partie. Un procédé de Chimie ne sera point du même ton que la description des bains & des théâtres anciens; ni la manœuvre d'un Serrurier exposée comme les recherches d'un Théologien sur un point de dogme ou de discipline. Chaque chose a son coloris, & ce seroit confondre les genres que de les réduire à une certaine uniformité. La pureté du style, la clarté, & la précision, sont les seules qualités qui puissent être communes à tous les articles, & nous espérons qu'on les y remarquera. S'en permettre davantage, ce seroit s'exposer

à la monotonie & au dégoût qui sont presque inséparables des Ouvrages étendus, & que l'extrême variété des matières doit écarter de celui-ci.

Nous en avons dit assez pour instruire le Public de la nature d'une entreprise à laquelle il a paru s'intéresser ; des avantages généraux qui en résulteront si elle est bien exécutée ; du bon ou du mauvais succès de ceux qui l'ont tentée avant nous ; de l'étendue de son objet ; de l'ordre auquel nous nous sommes assujettis ; de la distribution qu'on a faite de chaque Partie, & de nos fonctions d'Éditeurs. Nous allons maintenant passer aux principaux détails de l'exécution.

Toute la matière de l'Encyclopédie peut se réduire à trois chefs, les Sciences, les Arts libéraux, & les Arts mécaniques. Nous commencerons par ce qui concerne les Sciences & les Arts libéraux, & nous finirons par les Arts mécaniques.

On a beaucoup écrit sur les Sciences. Les traités sur les Arts libéraux se sont multipliés sans nombre ; la république des Lettres en est inondée. Mais combien peu donnent les vrais principes ? combien d'autres les noient dans une affluence de paroles, ou les perdent dans des ténèbres affectées ? Combien dont l'autorité en impose, & chez qui une erreur placée à côté d'une vérité, ou décrédite celle-ci, ou s'accrédite elle-même à la faveur de ce voisinage ? On eût mieux fait sans doute d'écrire moins & d'écrire mieux.

Entre tous les Écrivains, on a donné la préférence à ceux qui sont généralement reconnus pour les meilleurs. C'est de-là que les principes ont été tirés. A leur exposition claire & précise, on a joint des exemples ou des autorités constamment reçues. La coutume vulgaire est de renvoyer aux sources, ou de citer d'une manière vague, souvent infidèle, & presque toujours confuse ; en sorte que dans les différentes Parties dont un article est composé, on ne fait exactement quel Auteur on doit consulter sur tel ou tel point, ou s'il faut les consulter tous, ce qui rend la vérification longue & pénible. On s'est attaché, autant qu'il a été possible, à éviter cet inconvénient, en citant dans le corps même des articles les Auteurs sur le témoignage desquels on s'est appuyé ; rapportant leur propre texte quand il est nécessaire ; comparant par-tout les opinions ; balançant les raisons ; proposant des moyens de douter ou de sortir de doute ; décidant même quelquefois ; détruisant autant qu'il est en nous les erreurs & les préjugés ; & tâchant sur-tout de ne les pas multiplier, & de ne les point perpétuer, en protégeant sans examen des sentimens rejetés, ou en proscrivant sans raison des opinions reçues. Nous n'avons pas craint de nous étendre quand l'intérêt de la vérité & l'importance de la matière le demandoient, sacrifiant l'agrément toutes les fois qu'il n'a pu s'accorder avec l'instruction.

Nous ferons ici sur les définitions une remarque importante. Nous nous sommes conformés dans les articles généraux des Sciences à l'usage constamment reçu dans les Dictionnaires & dans les autres Ouvrages, qui veut qu'on commence en traitant d'une Science, par en donner la définition. Nous l'avons donnée aussi, la plus simple même & la plus courte qu'il nous a été possible. Mais il ne faut pas croire que la définition d'une Science, sur-tout d'une Science abstraite, en puisse donner l'idée à ceux qui n'y sont pas du moins initiés. En effet, qu'est-ce qu'une Science, sinon un système de règles ou de faits relatifs à un certain objet ; & comment peut-on donner l'idée de ce système à quelqu'un qui seroit absolument ignorant de ce que le système renferme ? Quand on dit de l'Arithmétique, que c'est la Science des propriétés des nombres, la fait-on mieux connoître à celui qui ne la fait pas ; qu'on ne feroit connoître la pierre philosophale, en disant que c'est le secret de faire de l'or ? La définition d'une Science ne consiste proprement que dans l'exposition détaillée des choses dont cette Science s'occupe, comme la définition d'un corps est la description détaillée de ce corps même ; & il nous semble d'après ce principe, que ce qu'on appelle définition de chaque Science seroit mieux placé à la fin qu'au commencement du livre qui en traite : ce seroit alors le résultat extrêmement réduit de toutes les notions qu'on auroit acquises. D'ailleurs, que contiennent ces définitions pour la plupart, sinon des expressions vagues & abstraites, dont la notion est souvent plus difficile à fixer que celle de la Science même ? Tels sont les mots, *science*, *nombre*, & *propriété*, dans la définition déjà citée de l'Arithmétique. Les termes généraux sans doute sont nécessaires, & nous avons vu dans ce Discours quelle en est l'utilité ; mais on pourroit les définir, un abus forcé des signes, & la plupart des définitions, un abus tantôt volontaire, tantôt forcé des termes généraux. Au reste, nous le répétons, nous nous sommes conformés sur ce point à l'usage, parce que ce n'est pas à nous à le changer, & que la forme même de ce Dictionnaire nous en empêchoit. Mais en ménageant les préjugés, nous n'avons point dû appréhender d'exposer ici des idées que nous croyons saines. Continuons à rendre compte de notre Ouvrage.

L'empire des Sciences & des Arts est un monde éloigné du vulgaire, où l'on fait tous les jours des découvertes, mais dont on a bien des relations fabuleuses. Il étoit important d'affirmer les vraies, de prévenir sur les fausses ; de fixer des points d'où l'on partit, & de faciliter ainsi la

recherche de ce qui reste à trouver. On ne cite des faits, on ne compare des expériences, on n'imagine des méthodes, que pour exciter le génie à s'ouvrir des routes ignorées, & à s'avancer à des découvertes nouvelles, en regardant comme le premier pas celui où les grands hommes ont terminé leur course. C'est aussi le but que nous nous sommes proposé, en alliant aux principes des Sciences & des Arts libéraux l'histoire de leur origine & de leurs progrès successifs; & si nous l'avons atteint, de bons esprits ne s'occuperont plus à chercher ce qu'on savoit avant eux. Il sera facile dans les productions à venir sur les Sciences & sur les Arts libéraux de démêler ce que les inventeurs ont tiré de leurs fonds d'avec ce qu'ils ont emprunté de leurs prédécesseurs: on appréciera les travaux; & ces hommes avides de réputation & dépourvus de génie, qui publient hardiment de vieux systèmes comme des idées nouvelles, seront bientôt démasqués. Mais, pour parvenir à ces avantages, il a fallu donner à chaque matière une étendue convenable, insister sur l'essentiel, négliger les minuties, & éviter un défaut assez commun, celui de s'appesantir sur ce qui ne demande qu'un mot, de prouver ce qu'on ne conteste point, & de commenter ce qui est clair. Nous n'avons ni épargné ni prodigué les éclaircissements. On jugera qu'ils étoient nécessaires par-tout où nous en avons mis, & qu'ils auroient été superflus où l'on n'en trouvera pas. Nous nous sommes encore bien gardés d'accumuler les preuves où nous avons crû qu'un seul raisonnement solide suffisoit, ne les multipliant que dans les occasions où leur force dépendoit de leur nombre & de leur concert.

Les articles qui concernent les élémens des Sciences ont été travaillés avec tout le soin possible; ils sont en effet la base & le fondement des autres. C'est par cette raison que les élémens d'une Science ne peuvent être bien faits que par ceux qui ont été fort loin au-delà; car ils renferment le système des principes généraux qui s'étendent aux différentes parties de la Science; & pour connoître la manière la plus favorable de présenter ces principes, il faut en avoir fait une application très-étendue & très-variée.

Ce sont-là toutes les précautions que nous avions à prendre. Voilà les richesses sur lesquelles nous pouvions compter; mais il nous en est survenu d'autres que notre entreprise doit, pour ainsi dire, à sa bonne fortune. Ce sont des manuscrits qui nous ont été communiqués par des Amateurs, ou fournis par des Savans, entre lesquels nous nommerons ici M. FORMET, Secrétaire perpétuel de l'Académie royale des Sciences & des Belles-Lettres de Prusse. Cet illustre Académicien avoit médité un Dictionnaire tel à-peu-près que le nôtre; & il nous a généreusement sacrifié la partie considérable qu'il en avoit exécutée, & dont nous ne manquerons pas de lui faire honneur. Ce sont encore des recherches, des observations, que chaque Artiste ou Savant chargé d'une partie de notre Dictionnaire, renfermoit dans son cabinet, & qu'il a bien voulu publier par cette voie. De ce nombre seront presque tous les articles de Grammaire générale & particulière. Nous croyons pouvoir assurer qu'aucun Ouvrage connu ne sera ni aussi riche ni aussi instructif que le nôtre sur les règles & les usages de la Langue Française, & même sur la nature, l'origine, & le philosophique des Langues en général. Nous ferons donc part au Public, tant sur les Sciences que sur les Arts libéraux, de plusieurs fonds littéraires dont il n'auroit peut-être jamais eu connoissance.

Mais ce qui ne contribuera guère moins à la perfection de ces deux branches importantes, ce sont les secours obligeans que nous avons reçus de tous côtés, protection de la part des Grands, accueil & communication de la part de plusieurs Savans; bibliothèques publiques, cabinets particuliers, recueils, portefeuilles, &c. tout nous a été ouvert, & par ceux qui cultivent les Lettres & par ceux qui les aiment. Un peu d'adresse & beaucoup de dépense, ont procuré ce qu'on n'a pu obtenir de la pure bienveillance; & les récompenses ont presque toujours calmé, ou les inquiétudes réelles, ou les allarmes simulées de ceux que nous avions à consulter.

Nous sommes principalement sensibles aux obligations que nous avons à M. l'abbé SALLIER, Garde de la Bibliothèque du Roi: il nous a permis, avec cette politesse qui lui est naturelle, & qu'animoit encore le plaisir de favoriser une grande entreprise, de choisir dans le riche fonds dont il est dépositaire, tout ce qui pouvoit répandre de la lumière ou des agrémens sur notre Encyclopédie. On justifie, nous pourrions même dire qu'on honore le choix du Prince, quand on fait se prêter ainsi à ses vûes. Les Sciences & les Beaux-Arts ne peuvent donc trop concourir à illustrer par leurs productions le regne d'un Souverain qui les favorise. Pour nous, spectateurs de leurs progrès & leurs historiens, nous nous occuperons seulement à les transmettre à la postérité. Qu'elle dise à l'ouverture de notre Dictionnaire, tel étoit alors l'état des Sciences & des Beaux-Arts. Qu'elle ajoute ses découvertes à celles que nous aurons enregistrées, & que l'histoire de l'esprit humain & de ses productions aille d'âge en âge jusqu'aux siècles les plus reculés. Que l'Encyclopédie devienne un sanctuaire où les connoissances des hommes soient à l'abri des tems & des révolutions. Ne serons-nous pas trop flattés d'en avoir posé les fondemens? Quel avantage n'auroit-ce pas été pour nos peres & pour nous, si les travaux des Peuples anciens, des Egyptiens, des Chaldéens, des Grecs, des Romains, &c.

avoient été transmis dans un ouvrage encyclopédique, qui eût exposé en même tems les vrais principes de leurs Langues ? Faisons donc pour les siècles à venir ce que nous regrettons que les siècles passés n'ayent pas fait pour le nôtre. Nous osons dire que si les Anciens eussent exécuté une Encyclopédie, comme ils ont exécuté tant de grandes choses, & que ce manuscrit se fût échappé seul de la fameuse bibliothèque d'Alexandrie, il eût été capable de nous consoler de la perte des autres.

Voilà ce que nous avions à exposer au Public sur les Sciences & les Beaux-Arts. La partie des Arts mécaniques ne demandoit ni moins de détails ni moins de soins. Jamais peut-être il ne s'est trouvé tant de difficultés rassemblées, & si peu de secours dans les Livres pour les vaincre. On a trop écrit sur les Sciences: on n'a pas assez bien écrit sur la plupart des Arts libéraux; on n'a presque rien écrit sur les Arts mécaniques; car qu'est-ce que le peu qu'on en rencontre dans les Auteurs, en comparaison de l'étendue & de la fécondité du sujet? Entre ceux qui en ont traité, l'un n'étoit pas assez instruit de ce qu'il avoit à dire, & a moins rempli son sujet que montré la nécessité d'un meilleur ouvrage. Un autre n'a qu'effleuré la matière, en la traitant plutôt en Grammairien & en homme de Lettres, qu'en Artiste. Un troisième est à la vérité plus riche & plus ouvrier: mais il est en même tems si court, que les opérations des Artistes & la description de leurs machines, cette matière capable de fournir seule des Ouvrages considérables, n'occupe que la très-petite partie du sien. Chambers n'a presque rien ajouté à ce qu'il a traduit de nos Auteurs. Tout nous déterminoit donc à recourir aux ouvriers.

On s'est adressé aux plus habiles de Paris & du Royaume; on s'est donné la peine d'aller dans leurs ateliers, de les interroger, d'écrire sous leur dictée, de développer leurs pensées, d'en tirer les termes propres à leurs professions, d'en dresser des tables, & de les définir, de converser avec ceux de qui on avoit obtenu des mémoires, & (précaution presque indispensable) de rectifier dans de longs & fréquens entretiens avec les uns, ce que d'autres avoient imparfaitement, obscurément, & quelquefois infidèlement expliqué. Il est des Artistes qui sont en même tems gens de Lettres, & nous en pourrions citer ici: mais le nombre en seroit fort petit. La plupart de ceux qui exercent les Arts mécaniques, ne les ont embrassés que par nécessité, & n'opèrent que par instinct. A peine entre mille en trouve-t-on une douzaine en état de s'exprimer avec quelque clarté sur les instrumens qu'ils employent & sur les ouvrages qu'ils fabriquent. Nous avons vu des ouvriers qui travaillent depuis quarante années, sans rien connoître à leurs machines. Il a fallu exercer avec eux la fonction dont se glorifioit Socrate, la fonction pénible & délicate de faire accoucher les esprits, *obstetric animarum*.

Mais il est des métiers si singuliers & des manœuvres si déliées, qu'à moins de travailler soi-même, de mouvoir une machine de ses propres mains, & de voir l'ouvrage se former sous ses propres yeux, il est difficile d'en parler avec précision. Il a donc fallu plusieurs fois se procurer les machines, les construire, mettre la main à l'œuvre; se rendre, pour ainsi dire, apprentif, & faire soi-même de mauvais ouvrages, pour apprendre aux autres comment on en fait de bons.

C'est ainsi que nous nous sommes convaincus de l'ignorance dans laquelle ont été sur la plupart des objets de la vie, & de la difficulté de sortir de cette ignorance. C'est ainsi que nous nous sommes mis en état de démontrer que l'homme de Lettres qui fait le plus sa Langue, ne connoît pas la vingtième partie des mots; que quoique chaque Art ait la sienne, cette langue est encore bien imparfaite; que c'est par l'extrême habitude de converser les uns avec les autres, que les ouvriers s'entendent, & beaucoup plus par le retour des conjonctures que par l'usage des termes. Dans un atelier c'est le moment qui parle, & non l'artiste.

Voici la méthode qu'on a suivie pour chaque Art. On a traité, 1°. de la matière, des lieux où elle se trouve, de la manière dont on la prépare, de ses bonnes & mauvaises qualités, de ses différentes espèces, des opérations par lesquelles on la fait passer, soit avant que de l'employer, soit en la mettant en œuvre.

2°. Des principaux ouvrages qu'on en fait, & de la manière de les faire.

3°. On a donné le nom, la description, & la figure des outils & des machines, par pièces détachées & par pièces assemblées; la coupe des moules & d'autres instrumens, dont il est à propos de connoître l'intérieur, leurs profils, &c.

4°. On a expliqué & représenté la main d'œuvre & les principales opérations dans une ou plusieurs planches, où l'on voit tantôt les mains seules de l'Artiste, tantôt l'Artiste entier en action, & travaillant à l'ouvrage le plus important de son art.

5°. On a recueilli & défini le plus exactement qu'il a été possible les termes propres de l'Art. Mais le peu d'habitude qu'on a & d'écrire & de lire des écrits sur les Arts, rend les choses difficiles à expliquer d'une manière intelligible. De-là naît le besoin de figures. On pourroit démontrer par mille exemples, qu'un Dictionnaire pur & simple de définitions, quelque bien

qu'il soit fait, ne peut se passer de figures, sans tomber dans des descriptions obscures ou vagues; combien donc à plus forte raison ce secours ne nous étoit-il pas nécessaire? Un coup d'œil sur l'objet ou sur la représentation en dit plus qu'une page de discours.

On a envoyé des Dessinateurs dans les ateliers. On a pris l'esquisse des machines & des outils. On n'a rien omis de ce qui pouvoit les montrer distinctement aux yeux. Dans le cas où une machine mérite des détails par l'importance de son usage & par la multitude de ses parties, on a passé du simple au composé. On a commencé par assembler dans une première figure autant d'éléments qu'on en pouvoit appercevoir sans confusion. Dans une seconde figure, on voit les mêmes éléments avec quelques autres. C'est ainsi qu'on a formé successivement la machine la plus compliquée, sans aucun embarras ni pour l'esprit ni pour les yeux. Il faut quelquefois remonter de la connoissance de l'ouvrage à celle de la machine, & d'autres fois descendre de la connoissance de la machine à celle de l'ouvrage. On trouvera à l'article ART quelques réflexions sur les avantages de ces méthodes, & sur les occasions où il est à propos de préférer l'une à l'autre.

Il y a des notions qui sont communes à presque tous les hommes, & qu'ils ont dans l'esprit avec plus de clarté qu'elles n'en peuvent recevoir du discours. Il y a aussi des objets si familiers qu'il seroit ridicule d'en faire des figures. Les Arts en offrent d'autres si composés, qu'on les représenteroit inutilement. Dans les deux premiers cas, nous avons supposé que le lecteur n'étoit pas entièrement dénué de bons sens & d'expérience; & dans le dernier, nous renvoyons à l'objet même. Il est en tout un juste milieu, & nous avons tâché de ne le point manquer ici. Un seul Art dont on voudroit tout représenter & tout dire, fourniroit des volumes de discours & de planches. On ne finiroit jamais si l'on se proposoit de rendre en figures tous les états par lesquels passe un morceau de fer, avant que d'être transformé en aiguille. Que le discours suive le procédé de l'artiste dans le dernier détail, à la bonne heure. Quant aux figures, nous les avons restreintes aux mouvemens importans de l'ouvrier & aux seuls momens de l'opération, qu'il est très-facile de peindre & très-difficile d'expliquer. Nous nous en sommes tenus aux circonstances essentielles, à celles dont la représentation, quand elle est bien faite, entraîne nécessairement la connoissance de celles qu'on ne voit pas. Nous n'avons pas voulu ressembler à un homme qui feroit planter des guides à chaque pas dans une route, de crainte que les voyageurs ne s'en écartassent. Il suffit qu'il y en ait par-tout où ils seroient exposés à s'égarer.

Au reste, c'est la main-d'œuvre qui fait l'artiste, & ce n'est point dans les livres qu'on peut apprendre à manœuvrer. L'artiste rencontrera seulement dans notre Ouvrage des vûes qu'il n'eût peut-être jamais eues, & des observations qu'il n'eût faites qu'après plusieurs années de travail. Nous offrirons au lecteur studieux ce qu'il eût appris d'un artiste en le voyant opérer, pour satisfaire sa curiosité, & à l'artiste, ce qu'il seroit à souhaiter qu'il apprît du Philosophe pour s'avancer à la perfection.

Nous avons distribué dans les Sciences & dans les Arts libéraux les figures & les planches, selon le même esprit & la même économie que dans les Arts mécaniques; cependant nous n'avons pu réduire le nombre des unes & des autres à moins de six cent. Les deux volumes qu'elles formeront ne seront pas la partie la moins intéressante de l'Ouvrage, par l'attention que nous aurons de placer au verso d'une planche l'explication de celle qui sera vis-à-vis, avec des renvois aux endroits du Dictionnaire auxquels chaque figure sera relative. Un lecteur ouvre un volume de planches, il apperçoit une machine qui pique sa curiosité: c'est, si l'on veut, un moulin à poudre, à papier, à soie, à sucre, &c. il lira vis-à-vis, figure 50. 51. ou 60. &c. moulin à poudre, moulin à sucre, moulin à papier, moulin à soie, &c. il trouvera ensuite une explication succincte de ces machines avec les renvois aux articles POU-DRE, PAPIER, SUCRE, SOIE, &c.

La Gravure répondra à la perfection des desseins, & nous espérons que les planches de notre Encyclopédie surpasseront autant en beauté celle du Dictionnaire Anglois, qu'elles les surpassent en nombre. Chambers a trente planches; l'ancien projet en promettoit cent vingt, & nous en donnerons six cent au moins. Il n'est pas étonnant que la carrière se soit étendue sous nos pas; elle est immense, & nous ne nous flaterons pas de l'avoir parcourue.

Malgré les secours & les travaux dont nous venons de rendre compte; nous déclarons sans peine, au nom de nos collègues & au nôtre, qu'on nous trouvera toujours disposés à convenir de notre insuffisance, & à profiter des lumières qui nous seront communiquées. Nous les recevrons avec reconnaissance, & nous nous y conformerons avec docilité, tant nous sommes persuadés que la perfection dernière d'une Encyclopédie est l'ouvrage des siècles. Il a fallu des siècles pour commencer; il en faudra pour finir: mais nous serons satisfaits d'avoir contribué à jeter les fondemens d'un Ouvrage utile.

Nous aurons toujours la satisfaction intérieure de n'avoir rien épargné pour réussir: une des preuves que nous en apporterons, c'est qu'il y a des parties dans les Sciences & dans les

Arts

Arts qu'on a refaites jusqu'à trois fois. Nous ne pouvons nous dispenser de dire à l'honneur des Libraires associés, qu'ils n'ont jamais refusé de se prêter à ce qui pouvoit contribuer à les perfectionner toutes. Il faut espérer que le concours d'un aussi grand nombre de circonstances, telles que les lumières de ceux qui ont travaillé à l'Ouvrage, les secours des personnes qui s'y sont intéressées, & l'émulation des Éditeurs & des Libraires, produira quelque bon effet.

De tout ce qui précède, il s'ensuit que dans l'Ouvrage que nous annonçons, on a traité des Sciences & des Arts, de manière qu'on n'en suppose aucune connoissance préliminaire; qu'on y expose ce qui importe de savoir sur chaque matière; que les articles s'expliquent les uns par les autres, & que par conséquent la difficulté de la nomenclature n'embarasse nulle part. D'où nous inférons que cet Ouvrage pourra, du moins un jour, tenir lieu de bibliothèque dans tous les genres à un homme du monde; & dans tous les genres, excepté le sien, à un Savant de profession; qu'il développera les vrais principes des choses; qu'il en marquera les rapports; qu'il contribuera à la certitude & aux progrès des connoissances humaines; & qu'en multipliant le nombre des vrais Savans, des Artistes distingués, & des Amateurs éclairés, il répandra dans la société de nouveaux avantages.

Il ne nous reste plus qu'à nommer les Savans à qui le Public doit cet Ouvrage autant qu'à nous. Nous suivrons autant qu'il est possible, en les nommant, l'ordre encyclopédique des matières dont ils se sont chargés. Nous avons pris ce parti, pour qu'il ne paroisse point que nous cherchions à assigner entr'eux aucune distinction de rang & de mérite. Les articles de chacun seront désignés dans le corps de l'Ouvrage par des lettres particulières, dont on trouvera la liste immédiatement après ce Discours.

Nous devons l'*Histoire naturelle* à M. DAUBENTON, Docteur en Médecine, de l'Académie Royale des Sciences, Garde & Démonstrateur du Cabinet d'Histoire naturelle, recueil immense, rassemblé avec beaucoup d'intelligence & de soin, & qui dans des mains aussi habiles ne peut manquer d'être porté au plus haut degré de perfection. M. Daubenton est le digne collègue de M. de Buffon dans le grand Ouvrage sur l'Histoire Naturelle, dont les trois premiers volumes déjà publiés, ont eu successivement trois éditions rapides, & dont le Public attend la suite avec impatience. On a donné dans le *Mercure de Mars* 1751 l'article *Abeille*, que M. Daubenton a fait pour l'Encyclopédie; & le succès général de cet article nous a engagé à insérer dans le second volume du *Mercure de Juin* 1751 l'article *Agate*. On a vu par ce dernier, que M. Daubenton fait enrichir l'Encyclopédie par des remarques & des vues nouvelles & importantes sur la partie dont il s'est chargé, comme on a vu dans l'article *Abeille* la précision & la netteté avec lesquelles il fait présenter ce qui est connu.

La Théologie est de M. MALLET, Docteur en Théologie de la Faculté de Paris, de la Maison & Société de Navarre, & Professeur royal en Théologie à Paris. Son savoir & son mérite seul, sans aucune sollicitation de sa part, l'ont fait nommer à la chaire qu'il occupe, ce qui n'est pas un petit éloge dans le siècle où nous vivons. M. l'Abbé Mallet est aussi l'Auteur de tous les articles d'*Histoire ancienne & moderne*; matière dans laquelle il est très-versé, comme on le verra bien tôt par l'Ouvrage important & curieux qu'il prépare en ce genre. Au reste, on observera que les articles d'*Histoire* de notre Encyclopédie ne s'étendent pas aux noms de Rois, de Savans, & de Peuples, qui sont l'objet particulier du Dictionnaire de Moreri, & qui auroient presque doublé le notre. Enfin, nous devons encore à M. l'Abbé Mallet tous les articles qui concernent la *Poésie*, l'*Eloquence*, & en général la *Littérature*. Il a déjà publié en ce genre deux Ouvrages utiles & remplis de réflexions judicieuses. L'un est son *essai sur l'étude des Belles-Lettres*, & l'autre ses *principes pour la lecture des Poètes*. On voit par le détail où nous venons d'entrer, combien M. l'Abbé Mallet, par la variété de ses connoissances & de ses talens, a été utile à ce grand Ouvrage, & combien l'Encyclopédie lui a d'obligation. Elle ne pouvoit lui en trop avoir.

La *Grammaire* est de M. DU MARSAIS, qu'il suffit de nommer.

La *Métaphysique*, la *Logique*, & la *Morale*, de M. l'Abbé YVON, Métaphysicien profond; & ce qui est encore plus rare, d'une extrême clarté. On peut en juger par les articles qui sont de lui dans ce premier volume; M. l'Abbé PESTRÉ, digne par son savoir & par son mérite de seconder M. l'Abbé Yvon, l'a aidé dans plusieurs articles de *Morale*. Nous saisissons cette occasion d'avertir que M. l'Abbé Yvon prépare conjointement avec M. l'Abbé DE PRADES, un Ouvrage sur la Religion, d'autant plus intéressant, qu'il sera fait par deux hommes d'esprit & par deux Philosophes.

La *Jurisprudence* est de M. TOUSSAINT, Avocat en Parlement, & membre de l'Académie royale des Sciences & des Belles-Lettres de Prusse; titre qu'il doit à l'étendue de ses connoissances, & à son talent pour écrire, qui lui ont fait un nom dans la Littérature.

Le *Blason* est de M. EIDOUS, ci-devant Ingénieur des Armées de Sa Majesté Catholique, & à qui la république des Lettres est redevable de la traduction de plusieurs bons Ouvrages de différens genres.

L'*Arithmétique* & la *Géométrie élémentaire* ont été revûes par M. l'Abbé DE LA CHAPELLE, Censeur royal & membre de la Société royale de Londres. Ses *Institutions de Géométrie*, & son *Traité des Sections coniques*, ont justifié par leur succès l'approbation que l'Académie des Sciences a donnée à ces deux Ouvrages.

Les articles de *Fortification de Tactique*, & en général d'*Art militaire*, sont de M. LE BLOND, Professeur de Mathématiques des Pages de la grande Ecurie du Roi, très-connu du Public par plusieurs Ouvrages justement estimés, entr'autres par ses *Elémens de Fortification* réimprimés plusieurs fois; par son *Essai sur la Castramétation*; par ses *Elémens de la Guerre des Sièges*, & par son *Arithmétique & Géométrie de l'Officier*, que l'Académie des Sciences a approuvée avec éloges.

La *Coupe des Pierres* est de M. GOUSSIER, très-versé & très-intelligent dans toutes les parties des Mathématiques & de la Physique; & à qui cet Ouvrage a beaucoup d'autres obligations, comme on le verra plus bas.

Le *Jardinage* & l'*Hydraulique* sont de M. D'ARGENVILLE, Conseiller du Roi en ses Conseils, Maître ordinaire en sa Chambre des Comptes de Paris, des Sociétés royales des Sciences de Londres & de Montpellier, & de l'Académie des Arcades de Rome. Il est Auteur d'un Ouvrage intitulé, *Théorie & Pratique du Jardinage, avec un Traité d'Hydraulique*, dont quatre éditions faites à Paris, & deux traductions, l'une en Anglois, l'autre en Allemand, prouvent le mérite & l'utilité reconnue. Comme cet Ouvrage ne regarde que les jardins de propreté, & que l'Auteur n'y a considéré l'Hydraulique que par rapport aux jardins, il a généralisé ces deux matieres dans l'Encyclopédie, en parlant de tous les jardins fruitiers, potagers, légumiers; on y trouvera encore une nouvelle méthode de tailler les arbres, & de nouvelles figures de son invention. Il a aussi étendu la partie de l'Hydraulique, en parlant des plus belles machines de l'Europe pour élever les eaux, ainsi que des écluses, & autres bâtimens que l'on construit dans l'eau. M. d'Argenville est encore avantageusement connu du Public par plusieurs Ouvrages dans différens genres, entr'autres par son *Histoire Naturelle éclaircie dans deux de ses principales parties, la Lithologie & la Conchyliologie*. Le succès de la première partie de cette Histoire a engagé l'Auteur à donner dans peu la seconde, qui traitera des minéraux.

La *Marine* est de M. BELLIN, Censeur royal & Ingénieur ordinaire de la Marine; aux travaux duquel sont dûes plusieurs Cartes que les Savans & les Navigateurs ont reçues avec empressement. On verra par nos Planches de *Marine*, que cette partie lui est bien connue.

L'*Horlogerie* & la *description des instrumens astronomiques* sont de M. J. B. LE ROY, qui est l'un des fils du célèbre M. Julien le Roy, & qui joint aux instructions qu'il a reçues en ce genre d'un pere si estimé dans toute l'Europe, beaucoup de connoissances des Mathématiques & de la Physique, & un esprit cultivé par l'étude des Belles-Lettres.

L'*Anatomic* & la *Physiologie* sont de M. TARIN, Docteur en Médecine, dont les Ouvrages sur cette matiere sont connus & approuvés des Savans.

La *Médecine*, la *Matiere médicale*, & la *Pharmacie*, de M. VANDENESSE, Docteur Régent de la Faculté de Médecine de Paris, très-versé dans la théorie & la pratique de son art.

La *Chirurgie* de M. LOUIS, Chirurgien gradué, Démonstrateur royal au Collège de Saint Côme, & Conseiller Commissaire pour les extraits de l'Académie royale de Chirurgie. M. Louis déjà très-estimé, quoique fort jeune, par les plus habiles de ses confreres, avoit été chargé de la partie chirurgicale de ce Dictionnaire par le choix de M. de la Peyronie, à qui la Chirurgie doit tant, & qui a bien mérité d'elle & de l'Encyclopédie, en procurant M. Louis à l'une & à l'autre.

La *Chimie* est de M. MALOUIN, Docteur Régent de la Faculté de Médecine de Paris, Censeur royal, & membre de l'Académie royale des Sciences; Auteur d'un *Traité de Chimie* dont il y a eu deux éditions, & d'une *Chimie medecinale* que les François & les étrangers ont fort goûtée.

La *Peinture*, la *Sculpture*, la *Gravure*, sont de M. LANDOIS, qui joint beaucoup d'esprit & de talent pour écrire à la connoissance de ces beaux Arts.

L'*Architecture* de M. BLONDEL, Architecte célèbre, non seulement par plusieurs Ouvrages qu'il a fait exécuter à Paris, & par d'autres dont il a donné les dessins, & qui ont été exécutés chez différens Souverains, mais encore par son *Traité de la Décoration des Edifices*, dont il a gravé lui même les Planches qui sont très-estimées. On lui doit aussi la dernière édition de *Daviler*, & trois volumes de l'*Architecture Française* en six cent Planches: ces trois volumes seront suivis de cinq autres. L'amour du bien public & le desir de contribuer à l'accroissement des Arts en France, lui a fait établir en 1744 une école d'Architec-

ture, qui est devenue en peu de tems très-fréquentée. M. Blondel, outre l'Architecture qu'il y enseigne à ses élèves, fait professer dans cette école par des hommes habiles les parties des Mathématiques, de la Fortification, de la Perspective, de la Coupe des Pierres, de la Peinture, de la Sculpture, &c. relatives à l'art de bâtir. On ne pouvoit donc, à toutes sortes d'égards, faire un meilleur choix pour l'Encyclopédie.

M. ROUSSEAU de Genève, dont nous avons déjà parlé, & qui possède en Philosophe & en homme d'esprit la théorie & la pratique de la Musique, nous a donné les articles qui concernent cette Science. Il a publié il y a quelques années un Ouvrage intitulé, *Dissertation sur la Musique moderne*. On y trouve une nouvelle manière de noter la Musique, à laquelle il n'a peut-être manqué pour être reçue, que de n'avoir point trouvé de prévention pour une plus ancienne.

Outre les Savans que nous venons de nommer, il en est d'autres qui nous ont fourni pour l'Encyclopédie des articles entiers & très-importans, dont nous ne manquerons pas de leur faire honneur.

M. LE MONNIER des Académies royales des Sciences de Paris & de Berlin, & de la Société royale de Londres, & Médecin ordinaire de S. M. à Saint-Germain-en-Laye, nous a donné les articles qui concernent l'Aimant & l'Électricité, deux matières importantes qu'il a étudiées avec beaucoup de succès, & sur lesquelles il a donné d'excellens mémoires à l'Académie des Sciences dont il est membre. Nous avons averti dans ce volume, que les articles AIMANT & AIGUILLE AIMANTÉE sont entièrement de lui, & nous ferons de même pour ceux qui lui appartiendront dans les autres volumes.

M. DE CAHUSAC de l'Académie des Belles-Lettres de Montauban, Auteur de *Zentide* que le Public revoit & applaudit si souvent sur la scène Française, des *Fêtes de l'Amour & de l'Hymen*, & de plusieurs autres Ouvrages qui ont eu beaucoup de succès sur le Théâtre lyrique, nous a donné les articles BALLET, DANSE, OPÉRA, DÉCORATION, & plusieurs autres moins considérables qui se rapportent à ces quatre principaux; nous aurons soin d'avertir chacun de ceux que nous lui devons. On trouvera dans le second volume l'article BALLET, qu'il a rempli de recherches curieuses & d'observations importantes; nous espérons qu'on verra dans tous l'étude approfondie & raisonnée qu'il a faite du Théâtre lyrique.

J'ai fait ou revu tous les articles de *Mathématique & de Physique*, qui ne dépendent point des parties dont il a été parlé ci-dessus; j'ai aussi suppléé quelques articles, mais en très-petit nombre, dans les autres parties. Je me suis attaché dans les articles de *Mathématique transcendante*, à donner l'esprit général des méthodes, à indiquer les meilleurs Ouvrages où l'on peut trouver sur chaque objet les détails les plus importans, & qui n'étoient point de nature à entrer dans cette Encyclopédie; à éclaircir ce qui m'a paru n'avoir pas été éclairci suffisamment, ou ne l'avoir point été du tout; enfin à donner, autant qu'il m'a été possible, dans chaque matière, des principes métaphysiques exacts, c'est-à-dire, simples. On peut en voir un essai dans ce volume aux articles *Action*, *Application*, *Arithmétique universelle*, &c.

Mais ce travail, tout considérable qu'il est, l'est beaucoup moins que celui de M. DIDEROT mon collègue. Il est auteur de la partie de cette Encyclopédie la plus étendue, la plus importante, la plus désirée du Public; & j'ose le dire, la plus difficile à remplir; c'est la description des Arts. M. Diderot l'a faite sur des mémoires qui lui ont été fournis par des ouvriers ou par des amateurs, dont on lira bien-tôt les noms, ou sur les connoissances qu'il a été puiser lui-même chez les ouvriers, ou enfin sur des métiers qu'il s'est donné la peine de voir, & dont quelquefois il a fait construire des modèles pour les étudier plus à son aise. A ce détail qui est immense, & dont il s'est acquitté avec beaucoup de soin, il en a joint un autre qui ne l'est pas moins, en suppléant dans les différentes parties de l'Encyclopédie un nombre prodigieux d'articles qui manquoient. Il s'est livré à ce travail avec un dévouement qui honore les Lettres, & avec un zèle digne de la reconnaissance de tous ceux qui les aiment ou qui les cultivent, & en particulier des personnes qui ont concouru au travail de l'Encyclopédie. On verra par ce volume combien le nombre d'articles que lui doit cet Ouvrage est considérable. Parmi ces articles, il y en a de très-étendus, comme ACIER, AIGUILLE, ARDOISE, ANATOMIE, ANIMAL, AGRICULTURE, &c. Le grand succès de l'article ART qu'il a publié séparément il y a quelques mois, l'a encouragé à donner aux autres tous ses soins; & je crois pouvoir assurer qu'ils sont dignes d'être comparés à celui-là, quoique dans des genres différens. Il est inutile de répondre ici à la critique injuste de quelques gens du monde, qui peu accoutumés sans doute à tout ce qui demande la plus légère attention, ont trouvé cet article ART trop raisonné & trop métaphysique, comme s'il étoit possible que cela fût autrement. Tout article qui a pour objet un terme abstrait & général, ne peut être bien traité sans remonter à des principes philosophiques, toujours un peu difficiles pour ceux qui ne sont pas dans l'usage de réfléchir. Au reste, nous devons avouer ici que nous avons vu avec plaisir un très-grand nombre de gens du monde entendre parfaitement cet article. A

l'égard de ceux qui l'ont critiqué, nous souhaitons que sur les articles qui auront un objet semblable, ils aient le même reproche à nous faire.

Plusieurs autres personnes, sans nous avoir fourni des articles entiers, ont procuré à l'Encyclopédie des secours importants. Nous avons déjà parlé dans le *Prospectus* & dans ce Discours de M. l'Abbé SALLIER & de M. FORMEY.

M. le Comte d'HEROUILLE DE CLAYE, Lieutenant Général des Armées du Roi, & Inspecteur Général d'Infanterie, que ses connoissances profondes dans l'Art militaire n'empêchent point de cultiver les Lettres & les Sciences avec succès, a communiqué des mémoires très-curieux sur la *Minéralogie*, dont il a fait exécuter en relief plusieurs travaux, comme le *cuivre*, l'*alun*, le *vinol*, la *couperose*, &c. en quatorze usines. On lui doit aussi des mémoires sur le *Colzat*, la *Garence*, &c.

M. FALCONET, Médecin Consultant du Roi, & membre de l'Académie royale des Belles-Lettres, possesseur d'une Bibliothèque aussi nombreuse & aussi étendue que ses connoissances, mais dont il fait un usage encore plus estimable, celui d'obliger les Savans en la leur communiquant sans réserve, nous a donné à cet égard tous les secours que nous pouvions souhaiter. Cet homme de Lettres citoyen, qui joint à l'érudition la plus variée les qualités d'homme d'esprit & de philosophe, a bien voulu aussi jeter les yeux sur quelques-uns de nos articles, & nous donner des conseils & des éclaircissémens utiles.

M. DUPIN, Fermier Général, connu par son amour pour les Lettres & pour le bien public, a procuré sur les *Salines* tous les éclaircissémens nécessaires.

M. MORAND, qui fait tant d'honneur à la Chirurgie de Paris, & aux différentes Académies dont il est membre, a communiqué quelques observations importantes; on en trouvera dans ce volume à l'article ARTÉRIOTOMIE.

MM. DE PRADES & YVON, dont nous avons déjà parlé avec l'éloge qu'ils méritent, ont fourni plusieurs mémoires relatifs à l'*Histoire de la Philosophie* & quelques uns sur la *Religion*. M. l'Abbé PESTRÉ nous a aussi donné quelques mémoires sur la *Philosophie*, que nous aurons soin de désigner dans les volumes suivans.

M. DESLANDES, ci devant Commissaire de la *Marine*, a fourni sur cette matière des remarques importantes dont on a fait usage. La réputation qu'il s'est acquise par ses différens Ouvrages, doit faire rechercher tout ce qui vient de lui.

M. LE ROMAIN, Ingénieur en chef de l'Isle de la Grenade, a donné toutes les lumières nécessaires sur les *Sucres*, & sur plusieurs autres machines qu'il a eu occasion de voir & d'examiner dans ses voyages en Philosophie & en Observateur attentif.

M. VENEL, très-versé dans la Physique & dans la Chimie, sur laquelle il a présenté à l'Académie des Sciences d'excellens mémoires, a fourni des éclaircissémens utiles & importans sur la *Minéralogie*.

M. GOUSSIER, déjà nommé au sujet de la *Coupe des pierres*, & qui joint la pratique du Dessin à beaucoup de connoissances de la Mécanique, a donné à M. Diderot la figure de plusieurs *Instrumens* & leur explication. Mais il s'est particulièrement occupé des figures de l'Encyclopédie qu'il a toutes revûes & presque toutes dessinées; de la *Lutherie* en général, & de la *façure de l'Orgue*, machine immense qu'il a détaillée sur les mémoires de M. THOMAS, son associé dans ce travail.

M. ROGEAU, habile Professeur de Mathématiques, a fourni des matériaux sur le *Monnoyage*, & plusieurs figures qu'il a dessinées lui-même, ou auxquelles il a veillé.

On juge bien que sur ce qui concerne l'Imprimerie & la Librairie, les Libraires associés nous ont donné par eux-mêmes tous les secours qu'il nous étoit possible de désirer.

M. PREVOST, Inspecteur des *Verrieres*, a donné des lumières sur cet Art important.

La *Brasserie* a été faite sur un mémoire de M. LONGCHAMP, qu'une fortune considérable & beaucoup d'aptitude pour les Lettres n'ont point détaché de l'état de ses peres.

M. BUISSON, Fabriqueur de Lyon, & ci-devant Inspecteur de Manufactures, a donné des mémoires sur la *Teinture*, sur la *Draperie*, sur la *Fabrication des étoffes riches*, sur le travail de la *Soie*, son *tirage*, *moulinage*, *ovalage*, &c. & des observations sur les Arts relatifs aux précédens, comme ceux de *dorer les lingots*, de *battre l'or & l'argent*, de les *tirer*, de les *filer*, &c.

M. LA BASSÉE a fourni les articles de *Passementerie*, dont le détail n'est bien connu que de ceux qui s'en sont particulièrement occupés.

M. DOUET s'est prêté à tout ce qui pouvoit instruire sur l'Art du *Gazier*, qu'il exerce.

M. BARRAT, ouvrier excellent dans son genre, a monté & démonté plusieurs fois en présence de M. Diderot le *métier à bas*, machine admirable.

M. PICHARD, Marchand Fabriqueur Bonnetier, a donné des lumières sur la *Bonneterie*.

MM. BONNET & LAURENT, ouvriers en Soie, ont monté & fait travailler sous les yeux de M. Diderot, un métier à velours, &c. & un autre en étoffe brochée: on en verra le détail à l'article VELOURS.

M. PAPILLON, célèbre Graveur en bois, a fourni un mémoire sur l'histoire & la pratique de son Art.

M. FOURNIER, très-habile Fondeur de caractères d'Imprimerie, en a fait autant pour la Fonderie des caractères.

M. FAVRE a donné des mémoires sur la Serrurerie, Taillanderie, Fonte des canons, &c. dont il est bien instruit.

M. MALLET, Potier d'étain à Melun, n'a rien laissé à désirer sur la connoissance de son Art.

M. HILL, Anglois de nation, a communiqué une Verrerie Angloise exécutée en relief, & tous ses instrumens avec les explications nécessaires.

MM. DE PUISIEUX, CHARPENTIER, MABILE, & DE VIENNE, ont aidé M. Diderot dans la description de plusieurs Arts. M. EIDOUS a fait en entier les articles de Maréchallerie & de Manège, & M. ARNAULD de Sentis, ceux qui concernent la Pêche & la Chasse.

Enfin un grand nombre d'autres personnes bien intentionnées ont instruit M. Diderot sur la fabrication des Ardoises, les Forges, la Fonderie, Refenderie, Triflerie, &c. La plupart de ces personnes étant absentes, on n'a pu disposer de leur nom sans leur consentement; on les nommera, pour peu qu'elles le desiront. Il en est de même de plusieurs autres dont les noms ont échappé. A l'égard de celles dont les secours n'ont été d'aucun usage, on se croit dispensé de les nommer.

Nous publions ce premier volume dans le tems précis pour lequel nous l'avions promis. Le second volume est déjà sous presse; nous espérons que le Public n'attendra point les autres, ni les volumes des Figures; notre exactitude à lui tenir parole ne dépendra que de notre vie, de notre santé, & de notre repos. Nous avertissons aussi, au nom des Libraires associés, qu'en cas d'une seconde édition, les additions & corrections seront données dans un volume séparé à ceux qui auront acheté la première. Les personnes qui nous fourniront quelques secours pour la suite de cet Ouvrage, seront nommées à la tête de chaque volume.

VOILA ce que nous avons à dire sur cette collection immense. Elle se présente avec tout ce qui peut intéresser pour elle; l'impatience que l'on a témoignée de la voir paroître; les obstacles qui en ont retardé la publication; les circonstances qui nous ont forcés à nous en charger; le zèle avec lequel nous nous sommes livrés à ce travail, comme s'il eût été de notre choix; les éloges que les bons citoyens ont donnés à l'entreprise; les secours innombrables & de toute espèce que nous avons reçus; la protection du Gouvernement; des ennemis tant foibles que puissans, qui ont cherché, quoique en vain, à étouffer l'ouvrage avant sa naissance; enfin des Auteurs sans cabale & sans intrigue, qui n'attendent d'autre récompense de leurs soins & de leurs efforts, que la satisfaction d'avoir bien mérité de leur patrie. Nous ne chercherons point à comparer ce Dictionnaire aux autres; nous reconnoissons avec plaisir qu'ils nous ont tous été utiles, & notre travail ne consiste point à décrier celui de personne. C'est au Public qui lit à nous juger: nous croyons devoir le distinguer de celui qui parle.

FIN DU DISCOURS PRELIMINAIRE.



fixé le bout de la piece. On les laisse pendre pour être encroisés de nouveau, & pour être de même placés sur les chevilles. Voyez l'article OURDIR.

ENCROIX, s. m. (*Manuscr. en soie, fil, laine, &c.*) Ce sont trois chevilles placées à demeure sur les traverses de deux des ailes du moulin, en-haut. Ces chevilles sont boutonnées par le bout, pour retenir les soies, qui sans cela s'échapperoient. Une de ces chevilles est fixée sur une autre aile, & c'est ordinairement sur l'aile la plus prochaine des deux dont on vient de parler. Cette dernière cheville reçoit le bout de la piece; les deux autres qui sont auprès, portent les soies encroisées, ainsi qu'on verra aux articles OURDIR & ENCROISER. Ces chevilles se trouvent répétées au bas de ce moulin, puisqu'il faut aussi encroiser en-bas. Si l'on ourdit de l'un à l'autre de ces encroix, la piece contiendra 144 aulnes de long; c'est la mesure la plus ordinaire, & l'étendue des ourdissoirs. Il y a encore un encroix mobile, qui consiste en une tringle de même forme que les traverses qui portent les encroix fixes dont on vient de parler. Celui-ci n'est pas plus long qu'il ne faut pour pouvoir entrer entre deux ailes du moulin: il est chantourné par les bouts, suivant le contour des ailes, qui étant les mêmes dans tout l'ourdissoir, on posera où l'on voudra. Il doit être fait de façon qu'il entre juste, & même un peu ferré. Les ailes par leur délicatesse pouvant aisément reculer un peu pour lui faire place, il est mis communément au milieu; en ce cas les bouts se reposent sur les traverses de ce milieu: mais si on le vouloit mettre ailleurs, il faudroit avoir soin de lier les deux bouts avec les ailes qui le porteroient, de crainte qu'ils n'échappassent malgré la petite gêne avec laquelle ils sont entrés. Cet encroix mobile donne la facilité d'ourdir de telle longueur que l'on veut au-dessous de 144 aulnes; mais lorsqu'on emplit l'ourdissoir en totalité, cet encroix est vacant, & doit être ôté de dessus le moulin, où il nuirait.

ENCROUÉ, adj. [*Jurispr.*] terme d'eaux & forêts, qui se dit d'un arbre lequel en tombant s'embarasse dans les branches d'un autre arbre qui est sur pied. L'ordonnance des eaux & forêts, tit. xv. art. 43. porte que les arbres seront abattus, en sorte qu'ils tombent dans les ventes sans endommager les arbres retenus, à peine de dommages & intérêts contre le marchand; que s'il arrivoit que les arbres abattus demeurassent encroués, les marchands ne pourront faire abattre l'arbre sur lequel celui qui sera tombé se trouvera encroué, sans la permission du grand-maître ou des officiers, après avoir pourvu à l'indemnité du roi (A).

*ENCYCLOPÉDIE, s. f. [*Philosoph.*] Ce mot signifie enchaînement de connoissances; il est composé de la préposition grecque *en*, en, & des substantifs *κύκλος*, cercle; & *παιδεία*, connoissance.

En effet, le but d'une Encyclopédie est de rassembler les connoissances éparées sur la surface de la terre, d'en exposer le système général aux hommes avec qui nous vivons, & de le transmettre aux hommes qui viendront après nous; afin que les travaux des siècles passés n'aient pas été des travaux inutiles pour les siècles qui succéderont; que nos neveux, devenant plus instruits, deviennent en même tems plus vertueux & plus heureux, & que nous ne mourions pas sans avoir bien mérité du genre humain.

Il eût été difficile de se proposer un objet plus étendu que celui de traiter de tout ce qui a rapport à la curiosité de l'homme, à ses devoirs, à ses besoins, & à ses plaisirs. Aussi quelques personnes accoutumées à juger de la possibilité d'une entreprise, sur le peu de ressources qu'elles apperçoivent en elles-mêmes, ont prononcé que jamais nous n'acheverions la nôtre. Voyez le *Dict. de Trévoux*, der-

nière édit. au mot *Encyclopédie*. Elles n'entendront de nous pour toute réponse, que cet endroit du chancelier Bacon, qui semble leur être particulièrement adressé. *De impossibilitate statui; ea omnia possibilia & præstabilia esse censenda quæ ab aliquibus perfici possunt, licet non à quibusvis; & quæ à multis conjunctim, licet non ab uno; & quæ in successione sæculorum, licet non eodem ævo; & denique quæ multorum curæ & sumptibus, licet non opibus & industriis singulorum.* Bac. lib. II. de augment. scient. cap. j. pag. 103.

Quand on vient à considérer la matière immense d'une Encyclopédie, la seule chose qu'on apperçoive distinctement, c'est que ce ne peut être l'ouvrage d'un seul homme. Et comment un seul homme, dans le court espace de sa vie, réussiroit-il à connoître & à développer le système universel de la nature & de l'art? tandis que la société savante & nombreuse des académiciens de la *Crusca* a employé quarante années à former son vocabulaire, & que nos académiciens françois avoient travaillé soixante ans à leur dictionnaire, avant que d'en publier la première édition! Cependant, qu'est-ce qu'un dictionnaire de langue? qu'est-ce qu'un vocabulaire, lorsqu'il est exécuté aussi parfaitement qu'il peut l'être? Un recueil très-exact des titres à remplir par un dictionnaire encyclopédique & raisonné.

Un seul homme, dira-t-on, est maître de tout ce qui existe; il disposera à son gré de toutes les richesses que les autres hommes ont accumulées. Je ne peux convenir de ce principe; je ne crois point qu'il soit donné à un seul homme de connoître tout ce qui peut être connu; de faire usage de tout ce qui est; de voir tout ce qui peut être vu; de comprendre tout ce qui est intelligible. Quand un dictionnaire raisonné des sciences & des arts ne seroit qu'une combinaison méthodique de leurs élémens, je demanderois encore à qui il appartient de faire de bons élémens; si l'exposition élémentaire des principes fondamentaux d'une science ou d'un art, est le coup d'essai d'un élève, ou le chef-d'œuvre d'un maître. Voyez l'article ÉLÉMENTS DES SCIENCES.

Mais pour démontrer avec la dernière évidence, combien il est difficile qu'un seul homme exécute jamais un dictionnaire raisonné de la science générale, il suffit d'insister sur les seules difficultés d'un simple vocabulaire.

Un vocabulaire universel est un ouvrage dans lequel on se propose de fixer la signification des termes d'une langue, en définissant ceux qui peuvent être définis, par une énumération courte, exacte, claire & précise, ou des qualités ou des idées qu'on y attache. Il n'y a de bonnes définitions que celles qui rassemblent les attributs essentiels de la chose désignée par le mot. Mais a-t-il été accordé à tout le monde de connoître & d'exposer ces attributs? L'art de bien définir est-il un art si commun? Ne sommes nous pas tous, plus ou moins, dans le cas même des enfans, qui appliquent avec une extrême précision, une infinité de termes à la place desquels il leur seroit absolument impossible de substituer la vraie collection de qualités ou d'idées qu'ils représentent? De-là, combien de difficultés imprévues, quand il s'agit de fixer le sens des expressions les plus communes? On éprouve à tout moment que celles qu'on entend le moins, sont aussi celles dont on se sert le plus. Quelle est la raison de cet étrange phénomène? C'est que nous sommes sans cesse dans l'occasion de prononcer qu'une chose est telle; presque jamais dans la nécessité de déterminer ce que c'est qu'être tel. Nos jugemens les plus fréquens tombent sur des objets particuliers, & le grand usage de la langue & du monde suffit pour nous diriger. Nous ne faisons que répéter ce que nous avons en-

Encyclopædia Britannica;

OR, A

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O F

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M.DCC.LXXI.

P R E F A C E.

UTILITY ought to be the principal intention of every publication. Wherever this intention does not plainly appear, neither the books nor their authors have the smallest claim to the approbation of mankind.

To diffuse the knowledge of Science, is the professed design of the following work. What methods, it may be asked, have the compilers employed to accomplish this design? Not to mention original articles, they have had recourse to the best books upon almost every subject, extracted the useful parts, and rejected whatever appeared trifling or less interesting. Instead of dismembering the Sciences, by attempting to treat them intelligibly under a multitude of technical terms, they have digested the principles of every science in the form of systems or distinct treatises, and explained the terms as they occur in the order of the alphabet, with references to the sciences to which they belong.

As this plan differs from that of all the Dictionaries of Arts and Sciences hitherto published, the compilers think it necessary to mention what they imagine gives it a superiority over the common method. A few words will answer this purpose. Whoever has had occasion to consult Chambers, Owen, &c. or even the voluminous French *Encyclopedie*, will have discovered the folly of attempting to communicate science under the various technical terms arranged in an alphabetical order. Such an attempt is repugnant to the very idea of science, which is a connected series of conclusions deduced from self-evident or previously discovered principles. It is well if a man be capable of comprehending the principles and relations of the different parts of science, when laid before him in one uninterrupted chain. But where is the man who can learn the principles of any science from a Dictionary compiled upon the plan hitherto adopted? We will, however, venture to affirm, that any man of ordinary parts, may, if he chuses, learn the principles of Agriculture, of Astronomy, of Botany, of Chemistry, &c. &c. from the *ENCYCLOPEDIA BRITANNICA*.

In the execution of this extensive and multifarious undertaking, the Compilers laboured under many disadvantages, partly arising from the nature of the work, and partly owing to the following circumstance.

THE

THE Editors, though fully sensible of the propriety of adopting the present plan, were not aware of the length of time necessary for the execution, but engaged to begin the publication too early. However, by the remonstrances of the Compilers, the publication was delayed for twelve months. Still time was wanted. But the subscribers pushed the Editors, and they at last persuaded the Compilers to consent to the publication. If time had been allowed, the Compilers designed to have completed the Sciences before proceeding to the technical terms: and by that means to have guarded against omissions, and made all the references from the terms to the Sciences more particular. The consequence was unavoidable. All the references to any science that occur in the alphabet previous to the name of the Science itself are general: those that follow are particular; pointing out, not only the name of the science, but the number of the page.

WE must further acknowledge, that, in some instances, we have deviated from the general plan; but, we hope, not without reason. For example, under the words *Botany* and *Natural History*, it would have been an endless, and perhaps an useless task, to have given the generic distinctions of every plant, and of every animal. These are to be found under the names of the plants and animals themselves. The same observation may be made with respect to *Mineralogy*, *Maternal Medicine*, *Pedology*, *Physiology*, and *Therapeutics*. These are so interwoven with *Anatomy*, *Botany*, *Chemistry*, and *Medicine*, that, in a work of this kind, it was almost impossible, without many unnecessary repetitions, to treat them as distinct sciences. Indeed, properly speaking, they are not sciences, but parts or accessories of sciences, which, by the dexterity of teachers and authors, have been long exhibited under that form.

With regard to errors in general, whether falling under the denomination of editorial, typographical, or accidental, we are conscious of being able to point out a greater number than any critic whatever. Men who are acquainted with the innumerable difficulties attending the execution of a work of such an extensive nature will make proper allowances. To these we appeal, and shall be satisfied with the judgment they pronounce.

In order to give some idea of the materials of which this Dictionary is composed, we shall conclude this preface with a list of the principal authors made use of in the compilation.

L I S T

LIST of A U T H O R S, &c.

- Albini tabulae anatomicae.*
 Alston's *Tyrociniuni botanicum.*
 ———— Essay on the sexes of plants.
 Bacon's *syloga sylvarum.*
Balk, Laurentii, Adolpho-Fredericianum,
in Ann. Acad.
 Balfour's philosophical essays.
 Barrow's dictionary of arts and
 sciences.
Barthoud sur l'art de conduire et de re-
gler les pendules et les montres.
 Bartlet's farriery.
 Beilfield's universal erudition.
 Brookes's practice of physic.
 ———— natural history.
Brown de ortu animalium coloris.
 Bouffon's *histoire naturelle.*
 Byrom's short-hand writing.
 Calmet's dictionary of the bible.
 Campbell's dissertation on miracles.
 Catelby's natural history of Carolina,
 Florida, &c.
 Chambers's dictionary of arts and
 sciences.
 Chambers's architecture.
 Chesselden's anatomy.
 Cotes's hydrostatical lectures.
 Cowper's *anatomia physica.*
 Crock'er's dictionary of arts and
 sciences.
 Cullen's *proprietas methodica.*
 ———— MS. lectures.
 Eichen's phytos-theology.
 Dickson's agriculture.
 Le Ditan's surgery.
 Daucun's moral philosophy.
 ———— Logic.
 Edwards's natural history.
 Elmgren's *termini botanici.*
Le Grand Encyclopedie.
 Erskine's institutes of the law of
 Scotland.
 Essays on husbandry.
 Foreign essays on agriculture.
 Essays physical and literary.
 Euclid's elements.
Englabii tabulae anatomicae.
 Franklin on electricity, &c.
 Ferguson's astronomy.
 ———— Mechanics.
 ———— Hydrostatics and hydraulics.
 ———— Dialling.
 ———— Principles of geography.
 ———— Optics.
 ———— Pneumatics.
 Goguet's origin of laws, arts, and
 sciences.
 Gregory's practical geometry.
 Grew's anatomy of plants.
Hartmann de plantis tyronum, in Ann.
Acad.
 Du Hamel's elements of agriculture.
 Harris's Hermes.
 Hasselquist's travels.
 ———— *de arboribus plantarum.*
Haji Rudolphi, Amphibia Gyllenborgi-
ana, in Ann. Acad.
 Heister's surgery.
 Hill's Eden.
Horti de plantis esulentis, in Ann.
Acad.
 History of arts and sciences.
 Hooke's philosophical experiments.
 Hudson's *Flora Anglica.*
 Hume's essays.
 Home's *principia medicinae.*

Home

- Home on bleaching.
 Jack's conic sections.
Johnstoni historia naturalis.
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* Gazetters, Pamphlets, Magazines, and other periodical publications; besides many books mentioned in the work itself.

CUSTOM, a very comprehensive term, denoting the manners, ceremonies and fashions of a people, which having turned into a habit, and passed into use, obtains the force of laws; in which sense it implies such usages, as, though voluntary at first, are yet, by practice, become necessary.

Customs is hence, both by lawyers and civilians, defined *lex non scripta*, a law, or right, not written, established by long usage, and the consent of our ancestors: in which sense it stands opposed to the *lex scripta*, or the written law.

CUSTOMS, in commerce, the tribute or toll, paid by merchants to the king, for goods exported or imported: they are otherwise called duties. See **DUTY**.

CUSTOM HOUSE, an office established by the king's authority in the maritime cities, or port-towns, for the receipt and management of the customs and duties of importation and exportation, imposed on merchandises, and regulated by books of rates.

CUSTOS brevis, the principal clerk belonging to the court of common pleas, whose business it is to receive and keep all the writs made returnable in that court, filing every return by itself; and, at the end of each term, to receive of the prothonotaries all the records of the nisi prius, called the pollers.

CUSTOS rotularum, an officer who has the custody of the rolls and records of the sessions of peace, and also of the commission of the peace itself.

He usually is some person of quality, and always a justice of the peace, of the quorum, in the county where he is appointed.

CUSTOS spiritualium, he that exercises the spiritual jurisdiction of a diocese, during the vacancy of any see, which, by the canon law, belongs to the dean and chapter; but at present, in England, to the archbishop of the province, by prescription.

CUSTOS temporalium was the person to whom a vacant see or abbey was given by the king, as supreme lord. His office was, as steward of the goods and profits, to give an account to the exchequer, who did the like to the exchequer.

CUTANBULL, certain worms, either under the skin, or upon it, which, by their creeping, cause an uneasy sensation. It is also applied to wandering scorbutic pains.

CUT-A-FEATHER, in the sea-language. If a ship has too broad a bow, it is common to say, *she will not cut a feather*; that is, she will not pass through the water so swift, as to make it foam or froth.

CUTANEOUS, in general, an appellation given to whatever belongs to the cutis or skin.

CUTICLE, in anatomy. See Vol. I. p. 235.

CUTICULAR, the same with cutaneous.

CUTIS, the skin, in anatomy. See Vol. I. p. 234.

CUTTER of the tallies, an officer of the exchequer, whose business it is to provide wood for the tallies; to cut or notch the sum paid upon them; and then to cast them into court, to be written upon. See **TALLY**.

CUTTLE-FISH. See **SEPIA**.

CUZU, the most eastern province of the kingdom of Ethiopia, in Africa.

CYANUS, in botany. See **CANTARIS**.

CYATHUS, in Roman antiquity, a liquid measure, containing four sigulas, or half a pint English wine-measure, being 46½ solid inches.

CYCLAMEN, or **SNOW-BREAD**, in botany, a genus of the pentandria monogynia class. The corolla is rotated and reflected; the tube is very short, with a prominent fauce; and the berry is covered with a capsule. There are two species, none of them natives of Britain. The root is a powerful aperient and abstergent.

CYCLE. See Vol. I. p. 491.

CYCLE of the moon. See Vol. I. p. 491.

CYCLE of the Roman indiction. See Vol. I. p. 491.

CYCLISCUS, in surgery, an instrument in the form of a half moon, used in scraping the skull, in case of fractures of that part.

CYCLOID, a curve on which the doctrine of pendulums and time-measuring instruments in a great measure depend; Mr Huygens demonstrated, that from whatever point or height a heavy body, oscillating on a fixed centre, begins to descend, while it continues to move in a cycloid, the time of its falls or oscillations will be equal to each other. It is likewise demonstrated, that it is the curve of quickest descent, i. e. a body falling in it, from any given point above, to another not exactly under it, will come to this point in a less time than in any other curve passing through these two points.

CYCLOMETRY, a term sometimes used for the measurement of circles.

CYCLOPEDIA, or **ENCYCLOPEDIA**, denotes the circle or compass of arts and sciences. A cyclopaedia, say the authors of the French Encyclopaedia, ought to explain, as much as possible, the order and connection of human knowledge. See **DICIONARY**.

CYCLOPTERUS, the **LUVE-FISH**, in ichthyology, a genus belonging to the order of amphibia nativa. The head is oblong, and furnished with saw-teeth; there are four rays in the gills; and the bony-fishes are connected together in an orbicular form. There are three species.

CYDER, an excellent drink made of the juice of apples. It conduces greatly to the goodness of the cyder, to let the apples lie a week or two in heaps, before they are pressed. After straining the liquor through a sieve, let it stand a day or two in an open tun, covered only with a cloth, or boards, to keep out the dirt, that the more gross parts may subside. Then draw it off in pails into vessels, wherein it is intended to be kept, observing to leave an eighth part of them empty. Set these vessels in your coldest cellars, with the bung open, or covered only with a loose cover, both that the volatile steams may have free vent, and that the mass may be kept cool, otherwise it is apt to ferment too much. Having fermented in this manner for fifteen or twenty days, the vessel may be stopp'd up close; and, in two or three months time, the cyder will be fit for drinking. But if you expect cyder in perfection, so as to flower in the glass; it must be glass'd as they call it, and drawn off into bottles, after it has been a short time in the cask: this is done by passing it into each ves-

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